

## Dimensions and Determinants of Women Empowerment in Developing Countries

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### ABSTRACT

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This study is an attempt to construct a women empowerment index using multi-dimensional factors in the context of demographic and socio-economic characteristics of women's living conditions at household level. The secondary objective of the study is also to measure the contribution of each factor towards the level of women empowerment. We have employed data from the Demographic and Health Surveys (DHS) of 38 developing economies on ever-married women in the age of 15-49. Five broad dimensions of women empowerment are created using 19 indicators from DHS that are related to the women empowerment. These five dimensions are; (i) women's work status, (ii) awareness, (iii) participation in decision making, (iv) self-esteem and, (v) self-confidence and multiple regression analysis are used for the estimation of empirical mode. The study finds that women's characteristics, primarily higher education and women's health, husband higher education, husband employment status and household wealth are positively associated with work status, awareness, decision making, self-esteem and self-confidence. Age difference younger than husband have positive association with works status, awareness, self-confidence while have negative association with self-esteem. Further, the number of children alive above five years and the number of children ever born also have significant impact on the women's empowerment. Similarly, age of head of household, gender of head of household, household size, and locality showed significant affect on the women empowerment in the sampled developing economies.

## 1. INTRODUCTION

Women empowerment has gained a higher priority in today's global development plan and is strongly linked with multiple development outcomes. The achievement of gender equality and women empowerment is the fifth Sustainable Development Goal (SDG-5) that is to be accomplished up till 2030 [1]. Although a considerable literature has emerged on theorizing, operationalizing and conceptualizing the women empowerment concept, however, any general definition or measure to indicate form of agency or achievement in empowerment is absent [2].

Women empowerment has been defined differently by different researchers and agencies. Chen [3] defined it as a concept comprising of "resources, perceptions and relationships. Rowlands [4] took up the "power within, power with, and power to" approach to define empowerment. Whereas World Bank (2001)'s definition is considered a "rights, resources, and voice" approach.

Mishra and Tripathi [5] framework of empowerment comprises of the indicators of "evidence, sources, and settings" while Kabeer [6] conceptualization of empowerment encompasses "resources, agency, and achievement." Similarly, the Gender Inequality Index (GII) measures gender inequalities in three essential aspects of human development such as; reproductive health, empowerment, and economic status [7]. Women's Political Empowerment Index (WPEI) from the Varieties of Democracy Project (V-Dem) provides information about women's "civil liberties, civil society

participation, and political participation" where each dimension (sub-index) has been conceptualized as a latent trait and constructed from several indicators women's civil liberties, civil society participation, and political participation globally [8].

Women empowerment is usually measured as autonomy, control over resources, workforce participation and self-esteem in the existing literature. A limited literature has taken empowerment as a multidimensional process, as resources, agency, and outcomes. Most of the studies and UNDP Indices measuring women empowerment tend to study the direct indicators of women empowerment like self-esteem, agency (decision making) and outcomes (like self-confidence and self-efficacy) separately and don't combine them in a single study.

The present study is an attempt to fill this gap by measuring women empowerment as a process regulated by the direct and indirect indicators of women empowerment such as; self-esteem, self-confidence, awareness, decision making, and work status of women in a single study. The literature on women empowerment is normally context based such as region or religion specific, based on micro credit framework analysis, or with specific focus on factors like health, age, education, marital status [9-12] health, age, education, marital status vice versa. The present study contributes to existing literature by examining the five different aspects of women empowerment including women characteristics, husband characteristics, head of household characteristics, and children etc. The primary objective of the study is to examine the

impact of household characteristics and other family member's characteristics on the different dimensions of women empowerment.

## 2. CONCEPTUAL FRAMEWORK

### 2.1 Women empowerment as a process

Kabeer [6] conceptualization of empowerment encompasses the concepts of resources, agency, and achievement. Resources have been stated as pre-condition and as opportunity structures by Alsop and Heinsohn [13]. Resources include material, human, and social resources as well as institutional environments [14, 15]. The agency includes internal qualities and having authority to make decisions alone [16].

Empowerment is normally measured as a goal that is achieved through education. However, all learning is not used to measure the empowerment; consciousness and skills development are also excellent tools to measure empowerment. Education, profession or work are a characteristic of a person; however, empowerment is not a characteristic. Educational attainment, good health, gaining self-respect and having self-confidence may also be included in the concept of progress [17].

Pratley and Sandberg [18] used economic, social and psychological dimensions to measure women empowerment. Baig, Batool [19] measured women empowerment by four indicators self-esteem, the power of decision making, control over resources and freedom of mobility. This study integrates the resource-agency-outcome approach through the channel of five dimensions for measuring empowerment as a process.

In our conceptual framework we have modified the Mishra and Tripathi (5) (evidence, source& setting), Kabeer [20] (resource, agency and achievement) and Sharaunga, Mudhara [21] (instance, resource agency) framework of women empowerment and used five dimensions to measure the women empowerment as a process. Resources are measured by (work status, awareness), the agency is measured by (self-esteem, decision making) and the outcome is measure by self-confidence.

For assessing the determinants/sources of women empowerment, we follow the studies where the woman's age at first marriage has found positively [22, 23] and negatively [24] associated with their empowerment statuses. The age of the household's head has been shown negatively related [25] and positively correlated [26] with women empowerment. Women belonging to the female-headed households have been observed to be associated with high [19, 27] and low [25] women empowerment. Household size is found to be negatively related to women empowerment [26, 28]. Women empowerment has known to be positively affiliated with the wealth status of household [23, 24, 26, 29] and adjust our determinants of women empowerment as women's characteristics, husband's characteristics, head of household, children and household's characteristics.

Thus, in the development literature, regardless of a wealth of diverse views, congruence is there on the empowerment as a multi-dimensional construct. So, after being cognizant of the

multifaceted and context-specific nature of the empowerment process, it is imperative to understand the determinants of women's empowerment in the context of the characteristics of individuals of the household's and a household's wealth, size, location and how they interact with various aspects of women's empowerment in the scenario of developing countries is the objective of this study.

## 3. RESEARCH METHODOLOGY

### 3.1 Measuring women's empowerment

The present study is based on the concept of women empowerment as perceived by Mishra and Tripathi [5], Kabeer [6] and Sharaunga, Mudhara [21]. The indicators of empowerment must constitute the process through which women increase their ability to make choices of life. Hence, the 19 indicators included encapsulate different dimensions of women empowerment, the following indicators are chosen for the analysis.

To assess the income and financial autonomy of females we have included questions such as: her current work status and nature of job., getting money for seeking medical help? For the purpose of assessing awareness status of females' questions such as whether or not she is reading a newspaper or magazine, listening radio, watching television are included in the analysis.

How often she makes decisions about household large purchases, visits to family or relatives, spending on woman's health care, the expenditure of the husband's earnings? Has she heard about family planning from newspaper/magazine, radio, television? What is her attitude toward wife beating, if wife: neglects the children, argues with husband, burns food, refuses to have sex with husband, goes outside without telling husband? The information on these indicators has been recorded on different scale details are given in Table 1.

### 3.2 Econometric analysis

The approach used in this study identifies all indicators of women empowerment under each dimension in the regions of Asia (North Africa West Asia Europe, South, and Southeast Asia, Central Asia), Latin America and Caribbean's and Sub Saharan Africa. Whereas, factor analysis was employed for the purpose of extracting information from 19 women empowerment related indicators and compressing them under five broader dimensions of female empowerment.

Factors were weighted using the Principal Component Analysis (PCA) method through a Varimax rotation method [30]. The same estimation techniques have been followed by Atmiş, Günşen [31] and Coulibaly-Lingani, Savadogo [30].

$$Factor_i = constant + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \epsilon_i$$

where, Factor<sub>i</sub> represents the factor score coefficients (saved as variables) generated through factor analysis,  $\beta_i$  symbolize the coefficient of the explanatory variables (socioeconomic and demography related variables given in the table), and  $\epsilon_i$  shows the error term.

**Table 1.** Women empowerment: Dimensions and measurement scale

Dimensions	Description	Measurement Scale in DHS Data
Work Status (WS)	Respondent is currently Working	No=0, Yes=1 0=did not work, 1=unskilled manual 2=Skilled manual, 3=household domestic, 4=agricultural - self-employed, 5=clerical 6=agricultural – employee, 7=sales, 8=services 9=professional/technical/managerial
	Respondent Employment Status	
Awareness (AW)	Respondent Watching TV	0=not at all, 1= almost daily, 2=at least once a week
	Respondent reading Newspaper or Magazines	0=not at all, 1= almost daily, 2=at least once a week
	Respondent listening to the radio	0=not at all, 1= almost daily, 2=at least once a week
	Heard about family planning on the radio	not at all=0, 1= less than once a week 2=at least once a week, 3= almost daily
Decision Making (DM)	Heard about family planning on TV	not at all=0, 1= less than once a week 2=at least once a week, 3= almost daily
	Heard about family planning from newspapers	not at all=0, 1= less than once a week 2=at least once a week, 3= almost daily
	The decision to spend women's husband earnings	0=Husband has no earnings, 1=Someone else, 3=Respondent and husband/partner 2=Husband/partner alone, 4=Respondent alone
Self Esteem (SE)	The decision about women's Health	1=Someone else, 2=Husband/partner alone 3=Respondent and husband/partner, 4=Respondent alone
	The decision about large household purchases	1=Someone else, 2=Husband/partner alone 3=Respondent and husband/partner, 4=Respondent alone
	The decision about visits to family or relatives	1=Someone else, 2=Husband/partner alone 3=Respondent and husband/partner, 4=Respondent alone
Self Confidence (SC)	Beating justified if wife argues with husband	0= Yes justified, 1= Not justified
	Beating justified if the wife neglects children	0= Yes justified, 1= Not justified
	Beating justified if wife goes outside without telling husband	0= Yes justified, 1= Not justified
	Beating justified if the wife refuses to have sex with the husband	0= Yes justified, 1= Not justified
	Beating justified if a wife burns food	0= Yes justified, 1= Not justified
Self Confidence (SC)	Getting medical help for self: Want to go alone	0=Big Problem, 1=Not a big problem
	Getting medical help for self: Getting money for treatment	0=Big Problem, 1=Not a big problem

Source: Demographic Health Survey

### 3.3 Empirical models to determine the factors influencing women empowerment

The socio-economic and demographic attributes of the respondents were examined as the determinants of women empowerment and classified into five categories that were: women's characteristics, husband's characteristics, children's characteristics, household head's characteristics, and household's characteristics. Each group was comprised of different socioeconomic and demographic variables. Multiple linear regression was performed to evaluate the relationship between women's empowerment and socio-economic and demographic characteristics of households.

We specifically use the following model to determine the impact of socio-economic and demographic characteristics of households on the five dimensions of women empowerment separately;

$$\text{Model-1: } WS = \alpha_0 + \alpha_1 WE + \alpha_2 ADH + \alpha_3 AFB + \alpha_4 BMI + \alpha_5 HE + \alpha_6 HES + \alpha_7 GHH + \alpha_8 AHH + \alpha_9 TNCA + \alpha_{10} TNCEB + \alpha_{11} THM + \alpha_{12} WI + \alpha_{13} PR_i + \mu_i$$

$$\text{Model-2: } AW = \gamma_0 + \gamma_1 WE + \gamma_2 ADH + \gamma_3 AFB + \gamma_4 BMI + \gamma_5 HE + \gamma_6 HES + \gamma_7 GHH + \gamma_8 AHH + \gamma_9 TNCA + \gamma_{10} TNCEB + \gamma_{11} THM + \gamma_{12} WI + \gamma_{13} PR + \mu_i$$

$$\text{Model-3: } DM = \delta_0 + \delta_1 WE + \delta_2 ADH + \delta_3 AFB + \delta_4 BMI + \delta_5 HE + \delta_6 HES + \delta_7 GHH + \delta_8 AHH + \delta_9 TNCA + \delta_{10} TNCEB + \delta_{11} THM + \delta_{12} WI + \delta_{13} PR + \mu_i$$

$$\text{Model-4: } SE = \beta_0 + \beta_1 WE + \beta_2 ADH + \beta_3 AFB + \beta_4 BMI + \beta_5 HE + \beta_6 HES + \beta_7 GHH + \beta_8 AHH + \beta_9 TNCA + \beta_{10} TNCEB + \beta_{11} THM + \beta_{12} WI + \beta_{13} PR + \mu_i$$

$$\text{Model-5: } SC = \theta_0 + \theta_1 WE + \theta_2 ADH + \theta_3 AFB + \theta_4 BMI + \theta_5 HE + \theta_6 HES + \theta_7 GHH + \theta_8 AHH + \theta_9 TNCA + \theta_{10} TNCEB + \theta_{11} THM + \theta_{12} WI + \theta_{13} PR + \mu_i$$

Explanatory variables used in the empirical models are listed in the Table 2.

**Table 2.** Operational definition of variables

Characteristics	Variables	Measurement Scales
Women personal characteristics	Women Education (WE)	No Education=0 Primary=1 Secondary=2 Higher=3
	Age difference with husband (ADH)	Older than husband=0 Equal with husband=1 Younger than husband=2
	Age at first birth (AFB)	Less than 20 Years=0 Above than 20=1
	Body Mass Index (BMI)	Less than 18.5 kg/m <sup>2</sup> =0 More than 18.5 kg/m <sup>2</sup> =1
Husband Characteristics	Husband Education (HE)	No Education=0 Primary=1 Secondary=2 Higher=3
	Husband Employment Status (HES)	Did not Work=0 Did Work=1
Women Children Information's	Total Number of Children alive (TCA) above than five years old	Discrete
	Total number of children ever born (TCEB)	Discrete
Household Head's Characteristics	Gender (GHH)	Male=1 Female=0
	Age (AHH)	Below 25=0 25-35=1 35-45=2 45-55=3 Above than 55=4
Household's Characteristics	Total member of household (THM)	Discrete
	Household Wealth Index (WI)	Poorest=0 Poorer=1 Middle=2 Rich=3 Richest=4
	Place of residence (PR)	Urban=0 Rural=1

Source: Demographic Health Survey

### 3.4 Source of data collections

The data for this study was taken from nationally representative Demographic and Health Surveys (DHS) of the respective 38 developing countries. The countries were selected on the basis of availability of data on the similar questions relating to the women empowerment at household levels. Operational definitions, (Table 2) are also recorded in the countries from their representative surveys. South and Southeast Asia (Pakistan, Timor Leste, Cambodia, India, Nepal) North Africa West Asia Europe (Azerbaijan, Jordan, Armenia, Egypt), Central Asia (Tajikistan, Kyrgyz Republic), Latin America & Caribbean's economies (Haiti, Honduras, Peru, Guatemala, Dominican Republic) and Sub-Saharan Africa (Ethiopia, Gabon, Gambia, Comoros, Congo Democratic, Cote d'Ivoire, Cameroon, Chad, Kenya, Liberia, Mali, Malawi, Mozambique, Namibia, Nigeria, Sierra Leone, Tanzania, Tonga, Uganda, Zimbabwe, Zambia, Burkina Faso) are selected according to availability of data.

## 4. RESULTS AND DISCUSSION

The indices calculated from PCA are further used in the Multiple regression model to examine the impact of different socio-economic and demographic factors on these indices. Results of the multiple regression analysis are given in Table

3. We would explain these results one by one.

To check the impact of women's education on the women empowerment, education was classified into three categories of primary, secondary, and tertiary (higher) while taking the uneducated women as a reference category. Regression results have shown highly significant and positive impact of each level of education on all the dimensions of women empowerment. The study findings are in line with the existing literature in the field. Scholars argue that education improves the awareness about the fundamental human rights [32]. In addition, education and skills improved the socio-economic status of women and enable them to seek and protect the rights more effectively and is useful for addressing socio-cultural norms that hamper women's well-being [11, 33]. Highly educated women have new perspectives relating to their lives which makes them more active to take part in decision making, to do work, to be self-esteemed and ultimately to be more confident.

In order to make a comparison between women's age difference with that of husbands' i.e. the women's age greater than, lesser than, and equal to (reference category) their husbands' age is taken as independent variable. The results show that if women's age is greater than their husbands', it has positive impact on the self-esteem, awareness, and self-confidence of women. However, it is affecting her work status negatively. Women older than husband are less likely to be more active to do work and unable to get better professions. On the other side, as compared to the reference category, the

women' age lesser than their husbands' age is positively associated with work status, and self-confidence, while negatively with decision making, self-esteem and awareness. Cognitive age difference proved as the key determinants of women empowerment by Jejeebhoy [34], Beegle, Frankenberg [35], Ahmad and Afzal [36], and Orgill and Heaton [37].

Age of the woman at first birth is significant in determining women empowerment. As opposed to be older than 30 years (reference category), having age less than 20 years is positively associated with the work status, self-esteem, and decision-making, awareness and self-confidence. Whereas having 20 to 30 years of age at first birth is positively affects work status, awareness, decision making and self-confidence and decision-making while negatively associated with self-esteem.

Our findings are endorsed by the findings of Musonera and

Heshmati [24] depicting a negative relationship between woman's age at first marriage and women empowerment. While Brajesh and Shekhar [23] and Jeckoniah, Nombo [22] found positive relationship between woman's age at first marriage and their empowerment (decision making, work status and self-esteem).

Women's body mass index (taken as a measure of women's health) is showing a significant and positive impact on self-esteem, awareness, work status, decision making, and self-confidence. As compared to the women having their body mass index less than 18.5kg/m<sup>2</sup>, the women with their body mass index equal to or greater than 18.5 kgm<sup>2</sup> seems to be more empowered as compared to those who are in poor health [38]. Abrar ul Haq, Jali [39] also used body mass index as a measure of women health and woman's suffering with any serious ailment was observed to be lowering her empowerment in Table 3.

**Table 3.** Socio-economics and demographic determinants of women empowerment

Socio-Economics and Demographic Characteristics	Model 1 Work Status	Model 2 Awareness	Model 3 Decision Making	Model 4 Self Esteem	Model 5 Self Confidence
(Constant)	2.398***(0.007)	1.76***(0.007)	4.734***(0.007)	5.015***(0.007)	3.938***(0.007)
<b>Women Education (No Education is reference category)</b>					
Primary	0.047***(0.003)	0.049***(0.003)	0.131***(0.003)	0.037***(0.003)	0.135***(0.003)
Secondary	0.037***(0.004)	0.051***(0.004)	0.132***(0.004)	0.031***(0.006)	0.095***(0.004)
Higher	0.169***(0.006)	0.028***(0.006)	0.168***(0.006)	0.007(0.006)	0.112***(0.006)
<b>Age Difference with Husband (Equal age is reference category)</b>					
Older than husband	-0.073***(0.008)	0.041***(0.002)	0.172***(0.008)	0.031***(0.008)	0.029***(0.008)
Younger than Husband	0.062***(0.002)	-0.032***(0.008)	-0.016***(0.002)	-0.024***(0.002)	0.106***(0.002)
<b>Age at First Birth (Above than 30 is reference category)</b>					
Less than 20Years	0.026***(0.002)	0.027***(0.002)	0.002***(0.002)	0.012***(0.002)	-0.011***(0.002)
Above than 20 years	0.029***(0.002)	0.004***(0.002)	0.031(0.002)	-0.007***(0.002)	0.006***(0.002)
<b>Women Body Mass Index (less than 18.5 kg/m<sup>2</sup> is reference category)</b>					
Body Mass Index	0.009***(0.003)	0.044***(0.003)	0.027***(0.003)	0.056***(0.003)	0.188***(0.003)
<b>Husband's Education (No education is reference Category)</b>					
Primary	0.035***(0.003)	0.335***(0.004)	-0.143***(0.004)	-0.184***(0.004)	-0.035***(0.004)
Secondary Education	-0.223***(0.005)	0.303***(0.003)	0.058***(0.003)	-0.033***(0.005)	-0.127***(0.005)
Higher Education	-0.201***(0.004)	0.732***(0.005)	0.059***(0.005)	0.083***(0.003)	-0.086***(0.004)
<b>Husband Employment status (Did not work as reference category)</b>					
Did work	0.021***(0.004)	0.033***(0.004)	-0.002(0.004)	0.007***(0.004)	0.141***(0.004)
<b>Gender of head of household (Male is reference category)</b>					
Female	0.032***(0.003)	-0.03***(0.002)	0.103***(0.002)	0.019***(0.002)	0.051***(0.003)
<b>Age of Head of Household (Above than 55 is reference category)</b>					
Below than25	0.002(0.004)	-0.105***(0.004)	0.087***(0.004)	-0.054***(0.054)	0.137***(0.002)
25-35	0.038***(0.003)	-0.054***(0.003)	0.119***(0.003)	-0.024***(0.003)	0.099***(0.002)
35-45	0.061***(0.003)	-0.019***(0.003)	0.115***(0.003)	-0.002***(0.003)	0.058***(0.004)
45-55	0.033***(0.003)	-0.006***(0.003)	0.071***(0.003)	-0.005(0.003)	0.041***(0.003)
<b>Total Children no. of children Alive above than Five years</b>	0.056***(0.002)	0.031***(0.002)	0.178***(0.002)	-0.015***(0.002)	-0.02***(0.003)
<b>Children Ever Born</b>	-0.026***(0.002)	-0.076***(0.002)	-0.132***(0.002)	-0.054***(0.002)	0.116***(0.002)
<b>Wealth Index (Poorest is reference category)</b>					
Poorer	0.035***(0.002)	0.073***(0.002)	-0.013***(0.003)	0.012***(0.003)	0.019***(0.003)
Middle	0.057***(0.003)	0.145***(0.003)	-0.003(0.003)	0.014***(0.003)	0.017***(0.003)
richer	0.074***(0.003)	0.237***(0.003)	-0.007(0.003)	0.049***(0.003)	0.02(0.003)
Richest	0.103***(0.003)	0.373***(0.003)	0.006(0.003)	0.107***(0.003)	0.048***(0.003)
<b>Total Household members</b>	-0.02(0.003)	0.012***(0.003)	-0.154***(0.003)	-0.04***(0.003)	0.043***(0.003)
<b>Place of residence (Rural is reference category)</b>					
Urban	-0.134***(0.002)	0.06***(0.003)	0.046***(0.002)	0.037***(0.002)	0.02***(0.002)
R Square	.030	.248	.054	.022	.076
Observations	360056	360056	360056	360056	360056

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 standard error in ( )

The study found that primary education has positive while secondary and higher education has negative impact on the work status of women. On the other hand, awareness is positively influenced by the husband's education at all levels.

Decision making is negatively influenced by the primary education while, it is positively affected by secondary and higher education. Primary and secondary education have negative while higher education has positive association with

self-esteem. Self-confidence is negatively related with all level of husband's education. The similar findings are also evident from the previous studies that husband's education negatively relate with the women empowerment (work status, self-esteem) [40, 41]. But many studies have explored the existence of a positive relationship between husband's education and women empowerment (awareness, decision making) [23, 26].

Husband's employment status (husband did work) has a positive impact on the women empowerment as compared to reference category husband did not work. Very few studies included husband's employment status as determinant of women empowerment. Assaad, Nazier [42] explore husband employment status has significant and positive impact on decision making and mobility.

The impact of household head's age on women empowerment is investigated by classifying this variable into five categories while considering the age above 55 as reference category. All the four compared categories are found to be positively associated with work status, decision making and self-confidence as compared to older age (above than 55 years old). On the other hand, in the case awareness and self-esteem it is found to be negatively associated with all age groups below than 55 which indicate age of head of household above than 55 years old have a positive impact on the self-esteem and awareness of women. The traditional thinking among the elder generation is that men should be in the leading role in the household is the reason that households headed by old age (above than 55 years) restricts women to do work, in decision making which results in the low level of self-confidence among most of the women. In case of younger head of households below than 55 years old have more influence on women in the matter of awareness and indicators (beating is justified) related to self-esteem which results in less empowerment among women. Each dimension of women empowerment was influenced by age of women empowerment in different way. In previous studies increasing age of the household's head has been shown negatively related with decision making and factors related to self-esteem [25, 26].

Female headship of the household shows a strong and significant contribution to determine the dimensions of women empowerment. As compared to the households with male as head of household (reference category), the gender of household as female had positive impact on work status, self-esteem, decision making and self-confidence. Maqsood, Ullah [27] and Baig, Batool [19] have also found more empowerment of women if she belonged to a female headed household. But the gender of household as female negatively affected the dimension of women empowerment classified as awareness status. Ayevbuomwan, Popoola [25] observed a negative relationship between women empowerment and the gender of a household's head as female.

Women with the total number of children alive above than five years age was positively associated with women's work status, awareness status and decision-making. Whereas, self-esteem and self-confidence are negatively influenced by the total number of children (above than five years of age). Assaad and Nazier [42] and Baig, Batool [19], Brajesh and Shekhar [23] found a positive association of women empowerment with total number of children alive above than five years old. It seems that adult children become the source of power in decision making, work status and awareness for women. With children above than five years of age females become more sensible and conscious in decisions making matters of their children, more vigilant to increase the level of awareness for

their children and to support their children in a better way.

The total number of children ever born is found to be negatively associated with the working status, awareness, decision making, self-esteem, while positively associated with the self-confidence. Upadhyay and Karasek [43] indicated that women with more children possess less power. Women's health is a strong factor to enhance the women empowerment but due to higher number of births women usually scarify their health and in return face the low level of empowerment. In contrast positive relationship between women empowerment and children ever born has also been observed in some studies [23, 24].

Total numbers of household members are positively related with awareness and self-confidence while negatively associated with work status, decision making and self-esteem. Akram [26] and Abrar-ul-Haq, Jali [28] predicted a negative relationship between women empowerment and household size, higher number of household members have a negative impact on the women empowerment. Every member in the family have his shown views and different thinking and every one tries to contribute in decision making that ultimately affect the women empowerment in a negative way. But in the case of awareness and self-confidence higher number of family members may also have positive influence on knowledge and awareness.

Household wealth is one of the most important determinants of women empowerment. In order to explore the impact of household wealth on women empowerment in our data set, we construct a household's wealth index by following a criterion. Based on the scores of wealth index the households are classified into poorer, middle, richer, and richest categories while the poorest was taken as the reference category. All the categories of household wealth are positively determining the self-esteem, awareness status, and work status (dimensions of women empowerment). While regressing the household wealth categories (as regressors) over these three dimensions of empowerment, an ordered increase in the value of regression coefficient was observed for an ordered affluence in household's wealth status. In other words, moving from the richest towards the poorest households, with respect to self-esteem, awareness status, and work status dimensions of women empowerment, the level of impacts explained by the richest and the poorest households were respectively the highest and the lowest. The impact explained was decreasing as the household's wealth status was decreasing. Only the richest category was positively associated, whereas poorer and richer categories negatively explained the decision-making dimension of women empowerment. Self-confidence was positively related with poorer and the richest categories, while it was found negatively associated with richer category. Positive relationship between women empowerment and household wealth index has already been found in a number of studies [23, 24, 29].

The women residing in urban areas are found to be more empowered in the dimensions of self-esteem, awareness, decision making, and self-confidence but less empowered regarding work status. The place of residence as urban is negatively associated with work status, while positively associated with remaining four dimensions of women empowerment. In rural areas job opportunities are fewer as compared to urban areas and low paid jobs do not increase the work status of women. The studies by [23, 24] proved the same significant results of urban locality on self-esteem and decision making.

## 5. CONCLUDING REMARKS

The findings obtained in this study indicate women's work status, self-esteem, self-confidence, decision-making, and awareness as the main dimensions of women empowerment. The study also concludes socioeconomic and demographic characteristics of the households as the important factors affecting women empowerment in developing countries. Amongst the 19 constituents of the dimensions of women empowerment, women's work status and nature of work had the highest factor loadings. Self-esteem—identified as the dimension of women empowerment—capsulated the women's attitude toward beating by husband and these constituents of self-esteem explained the maximum of the total variation. Women's participation in making decision about household's large purchases and her mobility for getting healthcare were also identified as amongst the most important indicators of women empowerment.

Women's personal characteristics, husband's and children's characteristics, and household's and household head's characteristics had significantly determined the different dimensions of women empowerment. The maximum impact of those socioeconomic and demographic attributes of the respondents and their households was accounted for women's awareness status followed by participation in decision making, work status, and self-confidence. The least impact of the socioeconomic and demographic attributes was seen on self-esteem.

Women's level of education has proved improvement in women's empowerment status. As primary, secondary, and tertiary has significantly and positively explained all the five dimensions of women empowerment. Hence, education seems useful for addressing socio-cultural norms which have hampered women's well-being. Good health has also proved to be a key to women empowerment as women's body mass index showed significant positive relationship with women empowerment.

Household wealth status was one of the most important determinants of women empowerment. As compared to the poorest households, poorer, mediocre, richer, and richest households were positively determining the self-esteem, awareness status, and work status dimensions of women empowerment. The impact explained by each category of households was decreasing as the household's wealth status was decreasing. Only the richest category was positively associated, whereas poorer and richer categories negatively explained the decision-making dimension of women empowerment. Self-confidence was positively related with poorer and the richest categories, while it was found negatively associated with richer category. We further recommend policies reforms to improve the economic conditions of the households and to give special emphasis on the health and education of women today as an investment to build good quality human resources for a nation's better and empowered status tomorrow.

## REFERENCES

- [1] Salman, S.M.J.W. (2005). United nations general assembly resolution: International decade for action, water for life, 2005-2015: A water forum contribution. *Water International*, 30(3): 415-418. <https://doi.org/10.1080/02508060508691884>
- [2] Mahmud, S., Shah, N.M., Becker, S.J.W.D. (2012). Measurement of women's empowerment in rural Bangladesh. *World Development*, 40(3): 610-619. <https://doi.org/10.1016/j.worlddev.2011.08.003>
- [3] Chen, M. (1992). Conceptual model for women's empowerment. International Center for Research on Women.
- [4] Rowlands, J. (1997). *Questioning Empowerment*. Oxford, Oxfam. <https://books.google.co.uk/books?hl=en&lr=&id=fXJKq2JQtyoC&oi=fnd&pg=PR5&dq=Rowlands+J.+Questioning+empowerment:+Oxford:+Oxfam%3B+1997.&ots=jZSxL7eeHN&sig=YBOLM4y4OH292VDLTbEIJopTKG8#v=onepage&q=Rowlands%20J.%20Questioning%20empowerment%3A%20Oxford%3A%20Oxfam%3B%201997.&f=false>
- [5] Mishra, N.K., Tripathi, T. (2011). Conceptualising women's agency, autonomy and empowerment. *Economic and Political Weekly*, 46(11): 58-65.
- [6] Kabeer, N. (1999). Resources, agency, achievements: Reflections on the measurement of women's empowerment. *Development and Change*, 30(3): 435-464. <https://doi.org/10.1111/1467-7660.00125>
- [7] UNDP. (2015). *Gender Inequality Index (GII). Human Development Report*. <http://hdr.undp.org/en/content/gender-inequality-index-gii>
- [8] Sundström, A., Paxton, P., Wang, Y.T., Lindberg, S.I. (2017). Women's political empowerment: A new global index, 1900–2012. *World Development*, 94: 321-335. <https://doi.org/10.1016/j.worlddev.2017.01.016>
- [9] Njoh, A.J., Akiwumi, F.A. (2012). The impact of religion on women empowerment as a millennium development goal in Africa. *Social Indicators Research*, 107(1): 1-18. <https://doi.org/10.1007/s11205-011-98274>
- [10] Jejeebhoy, S.J., Sathar, Z.A. (2001). Women's autonomy in India and Pakistan: The influence of religion and region. *Population and Development Review*, 27(4): 687-712.
- [11] Khan, R.E.A., Noreen, S. (2012). Microfinance and women empowerment: A case study of District Bahawalpur (Pakistan). *African Journal of Business Management*, 6(12): 4514-4521. <https://doi.org/10.5897/AJBM11.2407>
- [12] Al-shami, S.S.A., Razali, R., Rashid, N. (2017). The effect of microcredit on women empowerment in welfare and decisions making in Malaysia. *Social Indicators Research*, 137(3): 1073-1090. <https://doi.org/10.1007/s11205-017-1632-2>
- [13] Alsop, R., Heinsohn, N. (2005). Measuring empowerment in practice: Structuring analysis and framing indicators. *The World Bank*. <https://doi.org/10.1596/1813-9450-3510>
- [14] Malhotra, A., Schuler, S.R. (2005). Women's empowerment as a variable in international development. *Measuring Empowerment: Cross-Disciplinary Perspectives*, 71-88. <https://openknowledge.worldbank.org/bitstream/handle/10986/7441/344100PAPEROMe101Official0use0only1.pdf;sequence=1#page=93>
- [15] Mosedale, S. (2005). Assessing women's empowerment: Towards a conceptual framework. *Journal of International Development*, 17(2): 243-257. <https://doi.org/10.1002/jid.1212>

- [16] Kim, J.C., Watts, C.H., Hargreaves, J.R., Ndhlovu, L.X., Phetla, G., Morison, L.A., Busza, J., Porter, J.D.H., Pronyk, P. (2007). Understanding the impact of a microfinance-based intervention on women's empowerment and the reduction of intimate partner violence in South Africa. *Am J Public Health*, 97(10): 1794-1802. <https://doi.org/10.2105/AJPH.2006.095521>
- [17] Richardson, R.A. (2018). Measuring women's empowerment: A need for context and caution. *The Lancet Global Health*, 6(1): e30. [https://doi.org/10.1016/S2214-109X\(17\)30459-X](https://doi.org/10.1016/S2214-109X(17)30459-X)
- [18] Pratley, P., Sandberg, J.F. (2018). Refining the conceptualization and measurement of women's empowerment in Sub-Saharan Africa using data from the 2013 Nigerian demographic and health survey. *Social Indicators Research*, 140(2): 777-793. <https://doi.org/10.1007/s11205-017-1811-1>
- [19] Baig, I.A., Batool, Z., Ali, A., Baig, S.A., Hashim, M., Zia-ur-Rehman, M. (2018). Impact of women empowerment on rural development in Southern Punjab, Pakistan. *Quality & Quantity*, 52(4): 1861-1872. <https://doi.org/10.1007/s11135-017-0572-x>
- [20] Kabeer, N. (2011). Between affiliation and autonomy: navigating pathways of women's empowerment and gender justice in rural Bangladesh. *Development and Change*, 42(2): 499-528. <https://doi.org/10.1111/j.1467-7660.2011.01703.x>
- [21] Sharaunga, S., Mudhara, M., Bogale, A. (2016). Effects of 'women empowerment' on household food security in rural KwaZulu-Natal province. *Development Policy Review*, 34(2): 223-252. <https://doi.org/10.1111/dpr.12151>
- [22] Jeckoniah, J., Nombo, C., Mdoe, N. (2012). Determinants of women empowerment in the onion value chain: A case of Simanjiro district in Tanzania. *Journal of Economics and Sustainable Development*. 3(10): 88-99.
- [23] Brajesh, Shekhar, C. (2015). Level of women empowerment and its determinates in selected south Asian countries. *Journal of Humanities and Social Science (IOSR-JHSS)*, 20(4): 94-105. <https://doi.org/10.9790/0837-204594105>
- [24] Musonera, A., Heshmati A. (2017). Measuring women's empowerment in Rwanda. *Studies on Economic Development and Growth in Selected African Countries*, pp. 11-39. [https://doi.org/10.1007/978-981-10-4451-9\\_2](https://doi.org/10.1007/978-981-10-4451-9_2)
- [25] Ayevebuomwan, O., Popoola, O., Adeoti, A. (2016). Analysis of women empowerment in rural Nigeria: A multidimensional approach. *Global Journal of Human-Social Science Research*, 16(6).
- [26] Akram, N. (2018). Women's empowerment in Pakistan: Its dimensions and determinants. *Social Indicators Research*, 140(2): 755-775. <https://doi.org/10.1007/s11205-017-1793-z>
- [27] Maqsood, F., Ullah, S., Farooq, F. (2015). Proxy measures of women's empowerment and use of contraceptives in south Asian countries: An analysis of seven sisters. *Pakistan Journal of Social Sciences*, 35(1): 1-10.
- [28] Abrar-ul-Haq, M., Jali, M.R.M., Islam, G.M.N. (2017). Empowering rural women in Pakistan: Empirical evidence from Southern Punjab. *Quality & Quantity*, 51(4): 1777-1787. <https://doi.org/10.1007/s11135-016-0365-7>
- [29] Gupta, K., Yesudian, P.P. (2006). Evidence of women's empowerment in India: A study of socio-spatial disparities. *GeoJournal*, 65(4): 365-380. <https://doi.org/10.1007/s10708-006-7556-z>
- [30] Coulibaly-Lingani, P., Savadogo, P., Tigabu, M., Oden, P.C. (2011). Factors influencing people's participation in the forest management program in Burkina Faso, West Africa. *Forest Policy and Economics*, 13(4): 292-302. <https://doi.org/10.1016/j.forpol.2011.02.005>
- [31] Atmiş, E., Günşen, H.B., Lise, B.B., Lise, W. (2009). Factors affecting forest cooperative's participation in forestry in Turkey. *Forest Policy and Economics*, 11(2): 102-108. <https://doi.org/10.1016/j.forpol.2008.10.002>
- [32] Tijani, S.A., Yano, I. (2007). Assessment of current status of women farmers in Japan using empowerment indicators. *Journal of Applied Sciences*, 7(20): 3006-3014. <https://doi.org/10.3923/jas.2007.3006.3014>
- [33] Parveen, S., Leonhäuser, I. (2005). Empowerment of rural women in Bangladesh: A household level analysis. Margraf Berlin, Germany.
- [34] Jejeebhoy, S. (2000). Women's autonomy in rural India: Its dimensions, determinants, and the influence of context. In: Presser HB, Sen G, editors. *Women's Empowerment and Demographic Processes: Moving Beyond Cairo*. New York: Oxford University Press.
- [35] Beegle, K., Frankenberger, E., Thomas, D. (2001). Bargaining power within couples and use of prenatal and delivery care in Indonesia. *Studies in Family Planning*, 32(2): 130-146.
- [36] Ahmad, M.S., Mohd Afzal, S. (2004). Amelioration of genotoxic damage by certain phytoproducts in human lymphocyte cultures. *Chem. Biol. Interact.*, 149(2-3): 107-115. <https://doi.org/10.1016/j.cbi.2004.06.008>
- [37] Orgill, J., Heaton, T.B. (2005). Women's status and marital satisfaction in Bolivia. *Journal of Comparative Family Studies*, 36(1): 23-40. <https://doi.org/10.3138/jcfs.36.1.23>
- [38] Hindin, M.J. (2006). Women's input into household decisions and their nutritional status in three resource-constrained settings. *Public Health Nutr.*, 9(4): 485-493. <https://doi.org/10.1079/phn2005865>
- [39] Abrar ul Haq, M., Jali, M.R.M., Islam, G.M.N. (2018). Household empowerment as the key to eradicate poverty incidence. *Asian Social Work and Policy Review*, 13(1): 4-24. <https://doi.org/10.1111/aswp.12152>
- [40] Sathar, Z.A., Shahnaz, K. (2000). Women's autonomy in the context of rural Pakistan. *The Pakistan Development Review*, 39(2): 89-110.
- [41] Noreen, S. (2011). Role of microfinance in empowerment of female population of Bahawalpur district. *International Conference on Economics and Finance Research*, 4: 318-324.
- [42] Assaad, R.A., Nazier, H., Ramadan, R. (2014). Individual and households determinants of women empowerment: Application to the case of Egypt. *Economic Research Forum*.
- [43] Upadhyay, U.D., Karasek, D. (2012). Women's empowerment and ideal family size: an examination of DHS empowerment measures in Sub-Saharan Africa. *International Perspectives on Sexual and Reproductive Health*, 38(2): 78-89. <https://doi.org/10.1363/3807812>