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Research Article

THREE DIMENSIONAL INDICES OF WOMEN EMPOWERMENT AND FERTILITY IN INDIA

Hira LaL Sharma

Department of Mathematics and Statistics, College of Agriculture
J.N. Agricultural University, Jabalpur-482 004 (M.P.), India

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ABSTRACT

This study is concerned with the measurement of three types of indices related to women empowerment in India on the basis of three specific dimensions namely economic, household and physical movement decision based on normal deviate weighting of response categories and fertility differentials as mean number of total children ever born utilizing the data recorded in Demographic and Health Survey, 2005-06 . The suitability of the women empowerment is investigated through DHS data on factors such as age, place of residence, highest level of education, caste, religion and wealth index. The results reveal that the categories belonging to urban areas, higher education, Hindu Community except in Economic decision making index (EDMI) and richest wealth index provide higher women empowerment in EDMI and Physical movement index (PMI) while indices are at par in Household decision making index (HDMI) lowering mean number of total children ever born because of the women awareness about their rights in comparison to their counterparts.

INTRODUCTION

The women empowerment is not merely important , significant and sensitive issue in a country like India but also in the world which demands a multi-dimensional activities in which women can participate. It may be defined as the process of giving power with respect to economic decision, household decision and physical movement decision to the women at each stages of the life. During last few decades , a number of studies has been taken place in relation to women empowerment in India and other countries.(Acharya and Bennett ,1981;Keller and Mbwewe ,1991;Govindasamy and Malhotra,1996; Malhotra and Mather, 1997;Mason, 1998; Kabeer ,1998; Mason and Smith ,2000; Jejeebhoy ,2000; Kabeer ,2001; Bennett ,2002).

In present situation, studies related to women in India have become the important branch of academics. Recently, a number of innovative techniques are being utilized to ensure about equal opportunity to the women in all respects. Education plays an important role towards empowerment of women including training, orientation and academic progress. Likewise, the physical empowerment of women has to have information on food, nutrition, health, sanitation, life expectancy at birth and growth. The social empowerment of women consists of better position in the family, free desire for marriage, right to claim regarding property, social mobility, family welfare and gender equality. The economic empowerment of women has ownership and right to property, employability, improvement in the standard of living and fulfillment of basic needs to empower women.

Women participate almost 50% of the world's population but India has represented a distorted gender ratio in some of the states where female's population are comparatively lower than males. They are not treated as equal to men at all the stages. But in India even today, gender discriminations are found. However, this is a male dominated country where females are given responsibilities for family care and live at the home as per the rule and regulations of head of the household. The full development of any country depends on the population of women also who are not empowered and imposed by many social taboos. If we want to make our country a developed country, first and foremost, it is very much essential to empower women by parents, husbands, society, government, non-government organizations so that they can take their own decisions with respect to their lives, real rights and understanding and intended to well being in the family and the society. In the Western countries, the women have received almost equal right and status as parallel to men in all the walks of life.

Corresponding author:* **Hira LaL Sharma
Department of Mathematics and Statistics, College of Agriculture J.N. Agricultural University, Jabalpur-482 004 (M.P.), India

In India, women empowerment is dependent on many different factors that include place of residence (urban / rural), educational status (no education, primary, secondary and higher) social status (caste and class), wealth index(poorest, poorer, middle, richer and richest) , age and some socio-demographic variables. The different programmes on women's empowerment launch at the national, state and local levels in many sectors of the country having information on health, education, economic opportunities, recruitment in the government organization and political participation. However, there are significant difference between policy adaptation and actual implementation at the community level. At the 2005 World Summit, Governments of all nations agreed that "progress for women is progress for all". Eventually, it is a kind of tool that protects them against all forms of violence so that women can stand and walk without the fear of depression, exploitation and discrimination. That's why the Hon,ble Prime Minister Shri Narendra Modi has recently given a slogan" *Beti Bachao, Beti Padhao"*

Women have been facing sometimes difficulties in India and other countries by their family members and society and also targeted for many types of violence and exploitation practices by male members. There has been worshipping many female goddesses in India through a tradition with due respect to them in women forms in the society as mother, sister, daughter, grand-daughter, wife and other female relations. But, it does not infer that only paying respect to women can fulfill the gap of development in the country. Therefore, It is urgently required to empower the women of the country at every walk of life in comparison to men so that they can take their own choices and decisions, have equal rights to participate in social, religious and public activities, get equal opportunity for education and employment without any gender bias, get safe, comfortable travelling and working enthusiastic environment in any field.

Malhotra, Schuler and Boender (2002) listed the most commonly used dimensions of women empowerment. They categorized women empowerment into six dimensions such as economic, socio-cultural, familial/interpersonal, legal, political and psychological. But due to unavailability of all kinds of data regarding above mentioned dimensions, women empowerment has been divided into three dimensions viz. economic decision making, household decision making and physical movement decision.

As the matter of fact, the measurement of women empowerment in economic decision is based on three indicators such as participation in the family's major economic decision, final say on many large household purchases or purchases for daily needs, and opinion on who decides how to spend money. Economic decision making index tends to provide the measurement of women empowerment due to economic decision making. Empowerment in household decision making refers to the extent of women's ability to participate in planning and executing decisions on domestic affair, child welfare, own health care, deciding what to do with money husband's earn and decision maker for using contraception in consultation with other male family members. The increased role of women in household decision making would enable them to improve their self confidence and determination, save and use limited resources as required, self build up and power relations within households. It is computed on the basis of three indicators such as women's participation on their own health care, deciding what to do with money husbands earn and decision maker for using contraception. Empowerment in physical movement refers to the freedom of women for moving to necessary places without help of anybody. Several studies have advocated that encouragement of women's freedom of movement is necessary to make them stronger regarding their own choices, to change their attitudes, to improve their social networks and to reduce their level of poverty. Here, we measure women empowerment in physical movement by constructing index on the basis of questions such as they are allowed to go to market, health facility and places outside this village/community and finally on visits to their families or relative's house alone.

In these context, Tareque *et el*.(2007), Mostofa *et el*.(2008) and Haque et el.(2011) have studied about women empowerment in Bangladesh by constructing indices in accordance with the construction method of Human Development Index (UNDP,2005) based on the data of BDHS,2004 using theoretical and mathematical approach.

The objective of the present paper is to construct three dimensional indices on women empowerment in India based on normal deviate weighting of response categories and fertility differentials in mean number of total children ever born with respect to age-groups, place of residence, highest level of education, caste, religion and wealth index for describing the inherent variation in EDMI, HDMI, and PMI with the help of DHS, 2005-06, a large representative survey that contains several variables on such burning aspects. The source of data, construction methods of indices are given in Section 2 while Section 3 deals with results and discussions. The conclusions are given at the end.

Source of Data and Construction Methods of Indices

The DHS surveyed ever-married women of reproductive ages between 15 -49 in five year age groups. Each woman was separately interviewed and asked questions on their characteristics and reproductive histories. The files contain full birth histories. There is a record for every child born, including date of birth and gender. We know for every child born the characteristics of their mothers and can compute their mean number of children ever born by age groups, place of residence, and highest level of education, caste, and religion and wealth index.

The information in this survey covered the major dimensions of these concepts, namely economic decision making, household decision making and physical movement decision. The indicators for different dimensions are used in accordance with Mason and Smith (2003). Under Economic Decision Making, they included the indicators, "Who decides how to spend money", "Final say on large household purchases" and "Final say on making household purchases for daily needs" Under Household Decision Making "Final say on own health care", "Final say on deciding what to do with money husband's earn", and "Decision maker for using contraception" and lastly, under physical movement dimensions "Final say on visits to family or relatives", "allowed to go to market", "allowed to go to health facility and allowed to go to places outside this village/community",. They used actual score only for their

study. But here the scores similar to Human Development Index (HDI) by providing normal deviate weightings of the response categories have been developed.

Method of Summated Ratings

Let us assume that we have a large number of statements for which the scale values on the psychological continuum are unknown. We assume, however, that we can obtain agreement in classifying the statements into classes, favourable and unfavourable with approximately the same number of statements in each class. These statements are then given to a group of individuals who are asked to respond to each one in terms of their own agreement or disagreement with the statements. In obtaining responses from individuals we permit them to use any one of five categories: strongly agree, agree ,undecided, disagree, or strongly disagree. For any given statement we have available proportion of individuals giving each of the five categories of response. We want to weight these categories of response in such a way that the response made by individuals with most favourable attitudes will always have the highest positive weight. For the favourable statements, we assume that this is the "strongly agree" category, and for the unfavourable statements, we assume that it is the "strongly disagree" category.

Normal Deviate Weighting of Response Categories

In second row of Table 2.1 we show the proportion of individuals falling in each response category for a favorable statement. In third row of the same table we give the cumulative proportions, and in fourth row the cumulative proportions below a given category plus ½ the proportion within the next category. For, completeness, it is illustrated through an example (data taken from the age group of 15-19 of the indicator related to the economic decision (final say on large household purchases) .The procedure is followed in a similar way (see, Edwards, 1969 Chapter 6).

Table 2.1 The proportion of responses (N=4811) falling in each of five categories for a favorable statement and the normal deviate weights for these response categories based upon proportions

S. No.	Other	Someone else	Husband /Partner alone	Respondent and Husband partner	Respondent alone	Total Response
Responses	331	1729	1315	1292	144	4811
Proportion	0.0688	0.3594	0.2733	0.2686	0.0299	
Cum.Prop *(Cp)	0.0688	0.4282	0.7015	0.9701	1.0000	
Mid Point (Cp)	0.0344	0.2485	0.5649	0.8358	0.9851	
Z value**	-1.82	-0.68	0.16	0.98	2.17	
Z+ 1.82	0	1.14	1.98	2.80	3.99	
Z rounded	0	1	2	3	4	

*cumulative proportion
** Z values from the "Standard normal distribution: Table values represent AREA to the LEFT of the Z score".

In the similar way, if there are four response categories within an indicator, the normal deviate weights for these response categories are shown using the data of EDMI of the age group (15-19) of the indicator(who decides how to spend money) given below(see,Edwards,1969 Chapter 6).

Table 2.2 The proportion of responses (N=711) falling in each of four categories for a favourable statement and the normal deviate weights for these response categories based upon proportions

S. No.	Someone else	Husband /Partner alone	Respondent and Husband partner	Respondent alone	Total Response
Responses	127	144	359	141	711
Proportion	0.1647	0.1868	0.4656	0.1829	
Cum.Prop.*(Cp)	0.1647	0.3515	0.8171	1.0000	
Mid Point (Cp)	0.0824	0.2581	0.5843	0.9086	
Z value**	-1.39	-0.65	0.21	1.33	
Z+ 1.39	0	0.74	1.60	2.72	
Z rounded	0	1	2	3	

*cumulative proportion
** Z values from the "Standard normal distribution: Table values represent AREA to the LEFT of the Z score".

Likewise, if there are three response categories within an indicator, the normal deviate weights for these response categories are shown using the data of PMI of the age group (15-19) of the indicator(allowed to go to market) given below(see,Edwards,1969 Chapter 6).

Table 2.3 The proportion of responses (N=4190) falling in each of three categories for a favourable statement and the normal deviate weights for these response categories based upon proportions

S. No.	**Not at all**	**With someone else only**	**Respondent alone**	**Total Response**
Responses	574	2226	1390	4190
Proportion	0.1370	0.5313	0.3317	
Cum.Prop.*(Cp)	0.1370	0.6683	1.0000	
Mid Point (Cp)	0.0685	0.4027	0.8342	
Z value**	-1.49	-0.25	0.97	
Z+ 1.49	0	1.24	2.46	
Z rounded	0	1	2	

*cumulative proportion
** Z values from the "Standard normal distribution: Table values represent AREA to the LEFT of the Z score

The detailed descriptions of these three dimensions with their relevant indicators and their response items are given in Table 2.4.

The index of each dimension (economic decision making, household decision making, and physical movement decision) is measured following Human Development Index (HDI) made by the United Nations Development Program (UNDP 2005). The revised formula of HDI is derived as

Dimension Index based on an indicator (DIi) = $$\sum_{j=1}^{R} \frac{Xj - MinXj}{MaxXj - MinXj}$$

where, DIi is the dimension index for ith component of the indicator,

Xj is the actual score of jth response
Min Xj is the minimum score of jth response
Max Xj is the maximum score of jth response, and
R is the response categories within the indicator
and, then women empowerment index (WEIi) of ith dimension is determined by taking a geometric mean of all the indicators within a dimension.

Table 2.4 Three dimensions and indicators along with response items for measuring women empowerment

Dimensions	Indicators	Response items
Economic decision making	Who decides how to spend money	Respondent alone Respondent and husband partner Husband /partner alone Someone else
	Final say on many large household purchases	Respondent alone Respondent and husband partner Husband /partner alone Someone else Others
	Final say on making large household purchases for daily needs	Respondent alone Respondent and husband partner Husband /partner alone Someone else Others
Household decision making	Final say on own health care	Respondent alone Respondent and husband partner Husband / partner alone Someone else Others
	Final say on deciding what to do with money husband's earn	Respondent alone Respondent and husband partner Husband /partner alone Others
	Decision maker for using contraception	Husband/partner has no earnings Mainly Respondent Mainly husband, partner Joint decision Others
Physical movement decision	Final say on visits to family or relatives	Respondent alone Respondent and husband partner Husband /partner alone Someone else Others
	Allowed to go to market	Respondent alone With someone else only Not at all
	Allowed to go to health facility	Respondent alone With someone else only Not at all
	Allowed to go to places outside this village/community	Respondent alone With someone else only Not at all

RESULTS AND DISCUSSIONS

The suitability of the women empowerment is investigated using DHS data on factors such as age, place of residence, highest level education, caste, and religion and wealth index. Table 3.1 provides the mean values of empowerment indices by five year age group in accordance with mean of EDMI, HDMI and PMI with overall mean of total children ever born. The results indicate that mean of EDMI and PMI are found to be larger than HDMI. It may be due to the fact that dominance of women opinion is preferred in the construction of EDMI and PMI rather than that of HDMI, where men are preferred. The mean number of total children ever born during the (45-49) years of age is 3.91. Its graphical presentation is given in Appendix 3.1.

Table 3.1 Mean Values of Empowerment Indices by five year age group

Variables	Mean of EDMI	Mean of HDMI	Mean of PMI	Mean of Total Children Ever Born
Age-group				
15-19	0.5012	0.5176	0.5746	0.1139
20-24	0.5901	0.5491	0.6469	0.9398
25-29	0.6672	0.5787	0.7139	2.0455
30-34	0.7102	0.5954	0.7561	2.8149
35-39	0.7281	0.6046	0.7791	3.3364
40-44	0.7394	0.6067	0.7920	3.6450
45-49	0.7344	0.6128	0.7986	3.9160

Table 3.2 describes the mean values of empowerment Indices by place of residence and five year age group in accordance with mean of EDMI, HDMI and PMI with overall mean of total children ever born. The results reveal that mean of EDMI, HDMI and PMI in urban areas are found to be larger than rural areas with significant difference in EDMI and PMI while at par difference in HDMI. The mean of total children ever born in urban areas is found to be less than rural due to their education, awareness, facility, and perseverance in that region including reduction in mean of total children ever born from rural to

urban as 55% to 19% during their reproductive span of life. Its graphical presentation is given in Appendix 3.2.

Table 3.2 Mean Values of Empowerment Indices by place of residence and five year age group (Rural/Urban)

Variables	Mean of EDMI		Mean of HDMI		Mean of PMI		Mean of Total Children Ever Born	
Place of residence/ Age	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
15-19	0.4841	0.5550	0.5105	0.5361	0.5401	0.6187	0.1496	0.0671
20-24	0.5691	0.6290	0.5407	0.5619	0.6155	0.6857	1.1313	0.6995
25-29	0.6460	0.6948	0.5744	0.5841	0.6830	0.7500	2.3352	1.7105
30-34	0.6873	0.7378	0.5907	0.6010	0.7251	0.7922	3.1635	2.4060
35-39	0.7060	0.7533	0.6000	0.6101	0.7483	0.8136	3.7120	2.9124
40-44	0.7142	0.7680	0.6016	0.6125	0.7586	0.8294	4.0436	3.1998
45-49	0.7102	0.7632	0.6019	0.6124	0.7635	0.8386	4.2955	3.4821

Table 3.3 deals with the mean values of empowerment Indices by highest level of education and five year age group in accordance with mean of EDMI, HDMI and PMI with overall mean of total children ever born. The results reveal that mean of EDMI, and PMI in higher education groups are found to be larger than no education, primary and secondary groups while in the case of HDMI all education groups are found to be almost at par. The mean of total children ever born in higher education groups is found to be significantly lower followed by secondary, primary and no education groups. It may be because of education, awareness and other social taboos in higher education groups than that of other groups. Its graphical presentation is given in Appendix 3.3.

Table 3.3 Mean Values of Empowerment Indices by highest level of education and five year age group

Variables	Mean of EDMI			
Highest level of Education/Age	No Education	Primary	Secondary	Higher
15-19	0.5173	0.5010	0.5070	0.5402
20-24	0.5824	0.5983	0.5944	0.6128
25-29	0.6530	0.6840	0.6730	0.6969
30-34	0.6940	0.7195	0.7214	0.7237
35-39	0.7143	0.7388	0.7390	0.7444
40-44	0.7207	0.7443	0.7582	0.7658
45-49	0.7186	0.7378	0.7555	0.7650

Variables	Mean of HDMI			
Highest level of Education/Age	No Education	Primary	Secondary	Higher
15-19	0.5271	0.5253	0.5130	0.5083
20-24	0.5502	0.5462	0.5500	0.5553
25-29	0.5795	0.5818	0.5777	0.5788
30-34	0.5961	0.6000	0.5945	0.5910
35-39	0.6050	0.6072	0.6039	0.6034
40-44	0.6079	0.6109	0.6034	0.6064
45-49	0.6047	0.6089	0.6068	0.6106

Variables	Mean of PMI			
Highest level of Education/Age	No Education	Primary	Secondary	Higher
15-19	0.5048	0.5383	0.5895	0.6382
20-24	0.5922	0.6249	0.6487	0.7390
25-29	0.6669	0.7006	0.7263	0.7907
30-34	0.7143	0.7484	0.7750	0.8348
35-39	0.7480	0.7735	0.8019	0.8548
40-44	0.7594	0.7856	0.8206	0.8694
45-49	0.7739	0.7890	0.8297	0.8802

Variables	Mean of Total Children Ever Born			
Highest level of Education/Age	No Education	Primary	Secondary	Higher
15-19	0.3294	0.1742	0.0562	0.0093
20-24	1.6579	1.2785	0.7576	0.1474
25-29	2.9344	2.3784	1.7305	0.7374
30-34	3.7118	3.0032	2.3049	1.4033
35-39	4.1788	3.3451	2.6293	1.7995
40-44	4.4930	3.6321	2.8321	2.0246
45-49	4.6804	3.8085	3.0986	2.1398

Table 3.4 provides the mean values of empowerment Indices by caste and five year age group in accordance with mean of EDMI, HDMI and PMI with overall mean of total children ever born. The results reveal that mean of EDMI is larger in scheduled tribes than that of SC and OBC. While in the case of HDMI, ST is higher upto the age 29 years, after that it is found to be lower than SC and OBC categories. In the case of PMI, ST is higher up to the age of 39 years, after that it is found to be lower than SC and higher than OBC. It may be because of the new atmosphere among women has arisen The mean of total children ever born is found to be lower in OBC than SC and ST, due to consistent patience, education and stability in this caste. Its graphical presentation is given in Appendix 3.4.

Table 3.4 Mean Values of Empowerment Indices by caste and five year age group

Variables	Mean of EDMI		
Caste/Age-group	Scheduled caste	Scheduled tribe	OBC
15-19	0.5094	0.5504	0.4614
20-24	0.5949	0.6391	0.5714
25-29	0.6735	0.7025	0.6560
30-34	0.7217	0.7321	0.7024
35-39	0.7305	0.7404	0.7256
40-44	0.7396	0.7547	0.7350
45-49	0.7357	0.7383	0.7318

Variables	Mean of HDMI		
Caste/Age-group	Scheduled caste	Scheduled tribe	OBC
15-19	0.5101	0.5677	0.4916
20-24	0.5582	0.5693	0.5363
25-29	0.5913	0.5973	0.5707
30-34	0.6069	0.6045	0.5920
35-39	0.6136	0.6041	0.6052
40-44	0.6179	0.6035	0.6055
45-49	0.6211	0.5944	0.6063

Variables	Mean of PMI		
Caste/Age-group	Scheduled caste	Scheduled tribe	OBC
15-19	0.5571	0.6154	0.5428
20-24	0.6340	0.7000	0.6150
25-29	0.7142	0.7469	0.6937
30-34	0.7602	0.7801	0.7359
35-39	0.7811	0.7833	0.7672
40-44	0.7991	0.7866	0.7767
45-49	0.8124	0.7996	0.7803

Variables	Mean of Total Children Ever Born		
Caste/Age-group	Scheduled caste	Scheduled tribe	OBC
15-19	0.1534	0.1269	0.1217
20-24	1.1203	0.9842	1.0710
25-29	2.3104	2.1569	2.2158
30-34	3.1903	3.1363	2.9633
35-39	3.6804	3.9062	3.4837
40-44	4.0515	4.2677	3.8229
45-49	4.3717	4.6387	4.0516

Table 3.5 states the mean values of empowerment indices by religion and five year age group in accordance with mean of EDMI, HDMI and PMI with overall mean of total children ever born. The results reveal that mean of HDMI and PMI is larger in Hindu Community rather than Muslims while in the case of mean of EDMI, Muslims have more empowerment than Hindu, and because of Muslims women are given preference in the economic decision making. However, Hindu Community at overall age group has less mean number of total children ever born, due to understanding, patience and more perseverance rather than Muslims. Its graphical presentation is given in Appendix 3.5.

Table 3.5 Mean Values of Empowerment Indices by religion (Hindu/Muslim) and five year age group

Variables	Mean of EDMI		Mean of HDMI		Mean of PMI		Mean of Total Children Ever Born	
Religion /Age	Hindu	Muslim	Hindu	Muslim	Hindu	Muslim	Hindu	Muslim
15-19	0.4881	0.5215	0.5165	0.5098	0.5685	0.5278	0.1195	0.1267
20-24	0.5793	0.6020	0.5462	0.5427	0.6421	0.5981	0.9580	1.0526
25-29	0.6580	0.6789	0.5769	0.5711	0.7100	0.6726	2.0250	2.4879
30-34	0.7040	0.7085	0.5940	0.5908	0.7543	0.7055	2.7277	3.5585
35-39	0.7240	0.7337	0.6050	0.5977	0.7795	0.7359	3.1954	4.3458
40-44	0.7347	0.7394	0.6077	0.5969	0.7903	0.7664	3.4803	4.7454
45-49	0.7292	0.7370	0.6071	0.5975	0.7989	0.7493	3.7749	5.0409

Table 3.6 provides the mean values of empowerment Indices by wealth index and five year age group in accordance with mean of EDMI, HDMI and PMI with overall mean of total children ever born. The results reveal that mean of EDMI is smaller in richest wealth index up to the age 29 years ,after that it is found to be higher than other categories of wealth index while in the case of HDMI, it is at par but in case of PMI richest wealth index has higher women empowerment in the reproductive span. The mean of total children ever born is found to be lower in richest wealth index than their counterparts, due to consistent patience, education and stability in these higher wealth index groups. Its graphical presentation is given in Appendix 3.6.

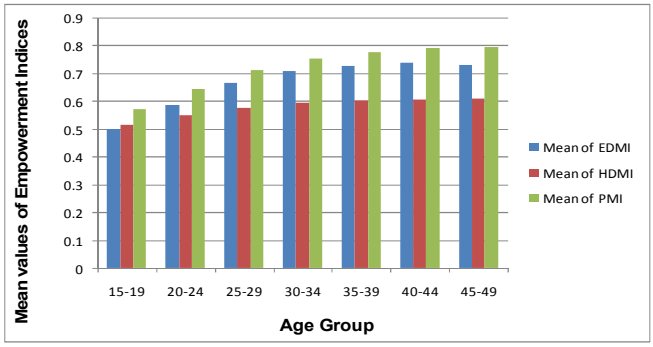
Table 3.6 Mean Values of Empowerment Indices by wealth index and five year age group

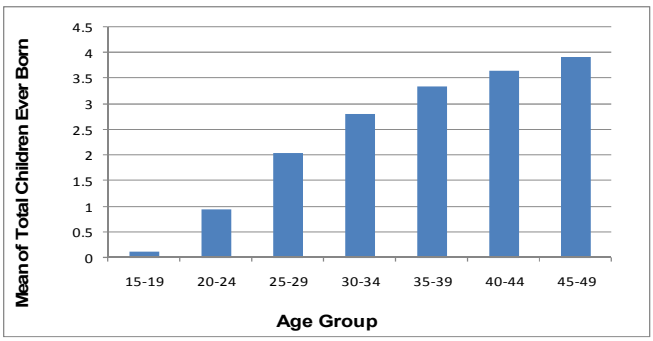
Variables	Mean of EDMI				
Highest level of Education/Age	Poorest	Poorer	Middle	Richer	Richest
15-19	0.5065	0.4911	0.5086	0.5138	0.4813
20-24	0.5992	0.5818	0.5948	0.6058	0.5899
25-29	0.6558	0.6614	0.6576	0.6792	0.6724
30-34	0.6926	0.6931	0.7132	0.7193	0.7231
35-39	0.7110	0.7088	0.7261	0.7373	0.7413
40-44	0.7102	0.7150	0.7324	0.7484	0.7539
45-49	0.7001	0.7069	0.7259	0.7482	0.7520

Variables	Mean of HDMI				
Highest level of Education/Age	Poorest	Poorer	Middle	Richer	Richest
15-19	0.5279	0.5229	0.5223	0.5125	0.5015
20-24	0.5543	0.5495	0.5453	0.5517	0.5474
25-29	0.5814	0.5881	0.5818	0.5776	0.5774
30-34	0.6058	0.5937	0.5945	0.5997	0.5903
35-39	0.6124	0.6012	0.6083	0.6059	0.6018
40-44	0.6110	0.6062	0.6107	0.6061	0.6055
45-49	0.6149	0.6012	0.6075	0.6059	0.6086

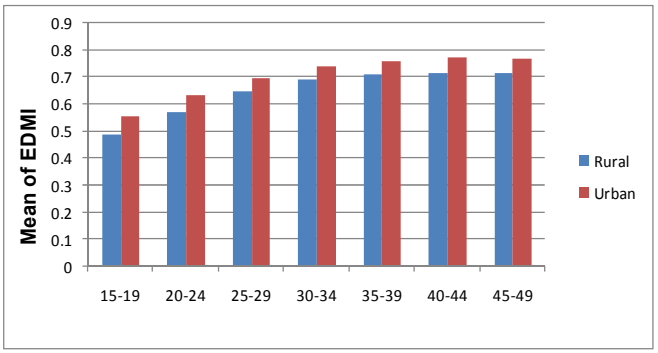
Variables	Mean of PMI				
Highest level of Education/Age	Poorest	Poorer	Middle	Richer	Richest
15-19	0.5038	0.5225	0.5543	0.5837	0.6278
20-24	0.5845	0.6033	0.6367	0.6508	0.6903
25-29	0.6523	0.6732	0.7027	0.7196	0.7573
30-34	0.6918	0.7102	0.7446	0.7708	0.7984
35-39	0.7120	0.7330	0.7769	0.7874	0.8220
40-44	0.7252	0.7481	0.7806	0.7954	0.8319
45-49	0.7414	0.7493	0.7792	0.8035	0.8360

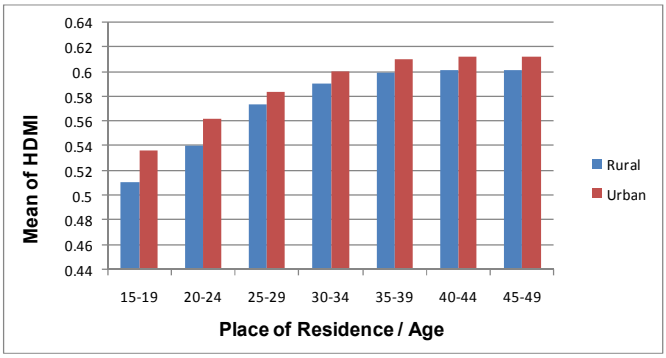
Variables	Mean of Total Children Ever Born				
Highest level of Education/Age	Poorest	Poorer	Middle	Richer	Richest
15-19	0.2426	0.2028	0.1326	0.0772	0.0265
20-24	1.6725	1.3970	1.0722	0.8401	0.4560
25-29	3.0721	2.7149	2.3163	1.9118	1.2949
30-34	3.9902	3.5694	3.1044	2.6078	1.9883
35-39	4.5539	4.1104	3.7194	3.1620	2.4446
40-44	4.9056	4.5567	4.0541	3.5851	2.7583
45-49	5.1469	4.7559	4.3174	3.9583	3.1081

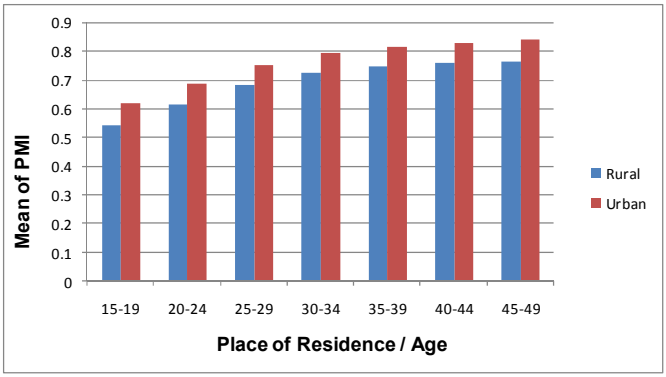


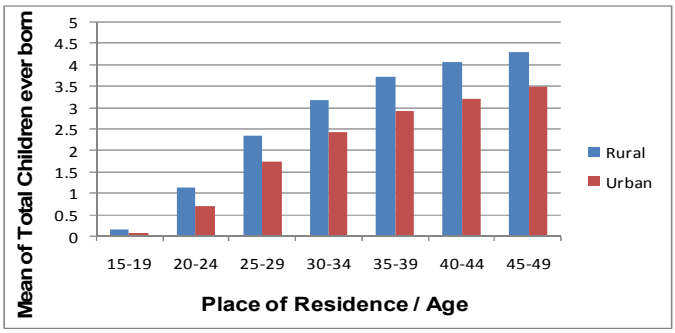


Appendix 3.1 Mean Values of Empowerment Indices by five year age group

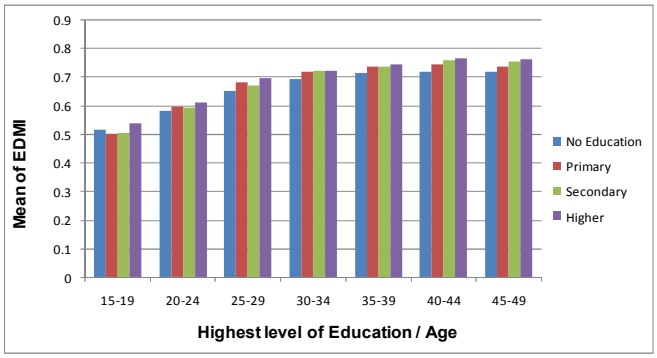


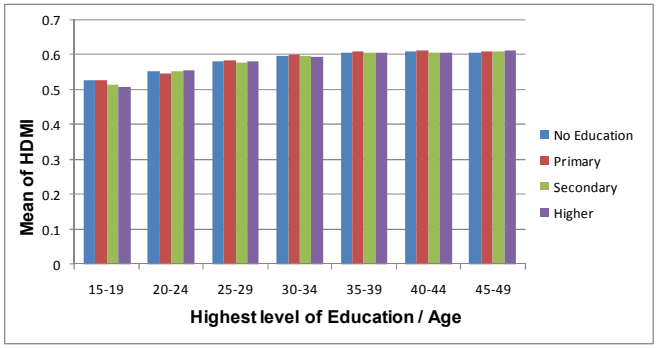


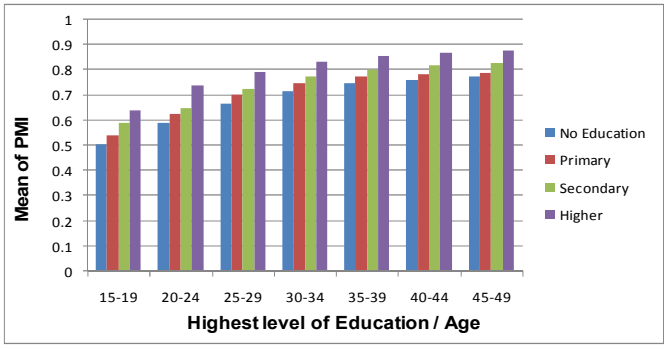


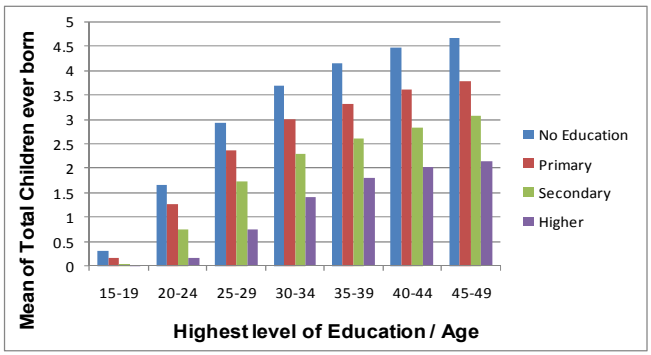


Appendix 3.2 Mean Values of Empowerment Indices by place of residence and five year age group (Rural/Urban)

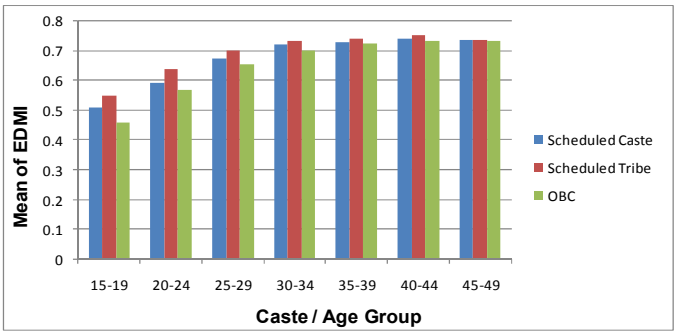


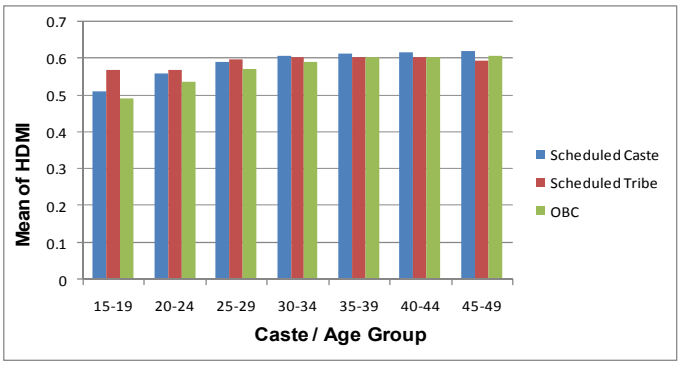


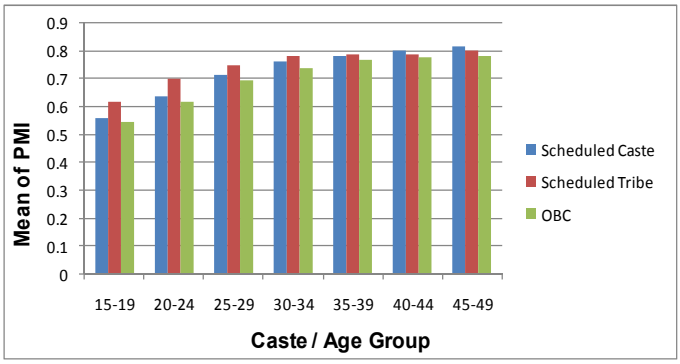




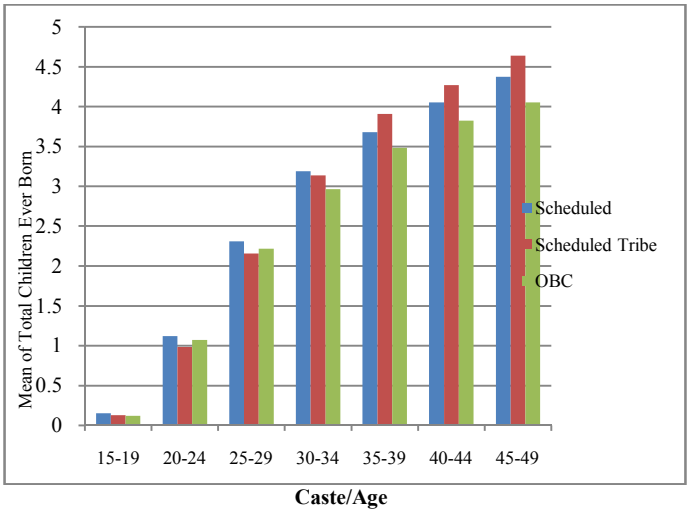
Appendix 3.3 Mean Values of Empowerment Indices by highest level of education and five year age group



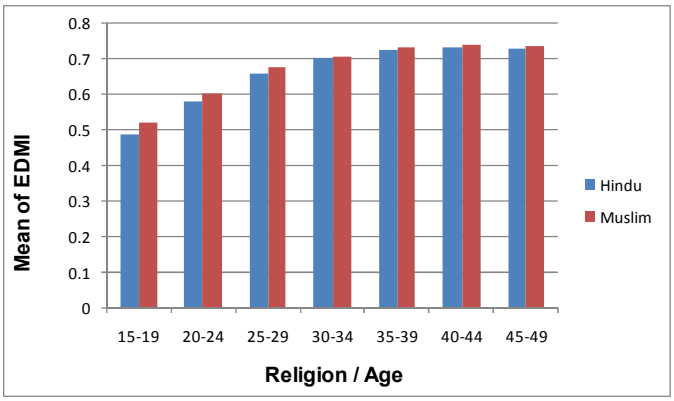


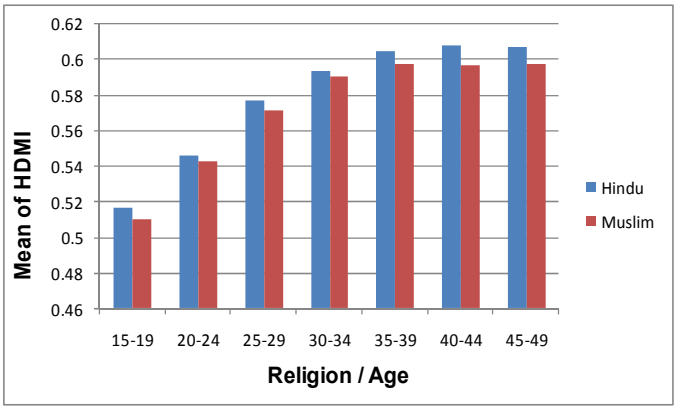


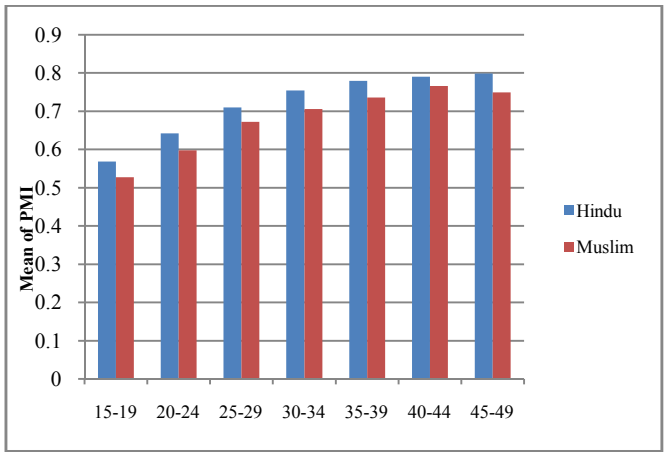
Appendix 3.4 Mean Values of Empowerment Indices by caste and five year age group

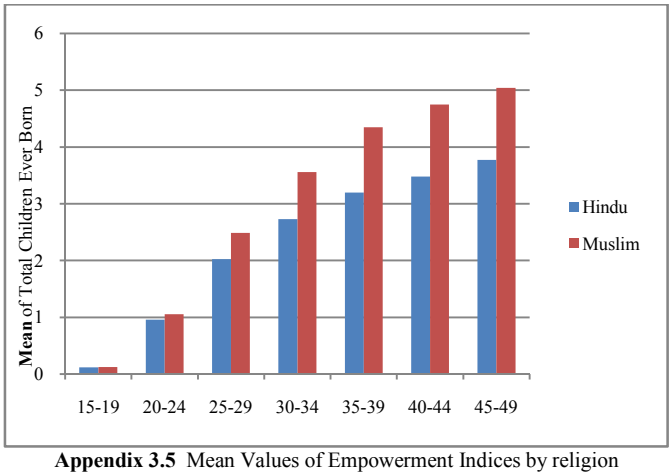


Appendix 3.4 Mean Values of Empowerment Indices by caste and five year age group

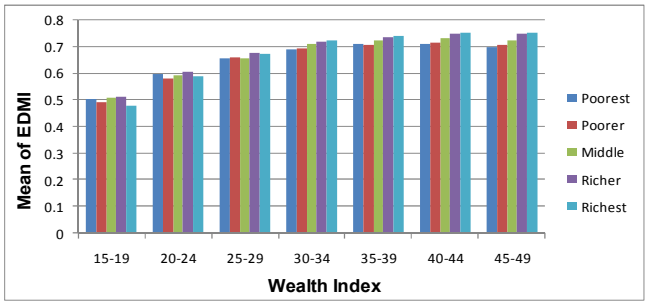


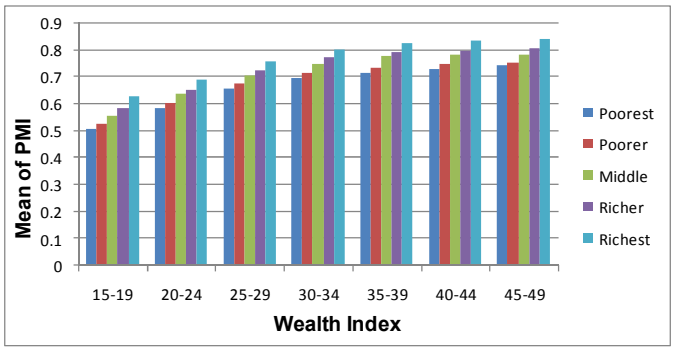


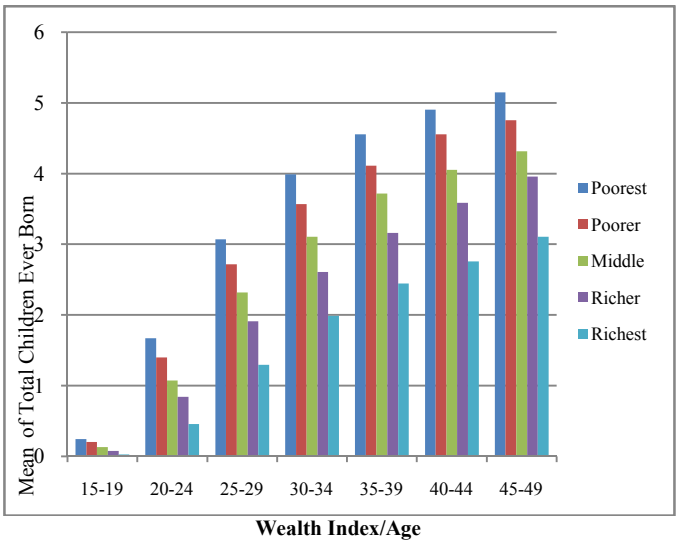




Appendix 3.5 Mean Values of Empowerment Indices by religion (Hindu/Muslim) and five year age group







Appendix 3.6 Mean Values of Empowerment Indices by wealth index and five year age group

CONCLUSIONS

In fact, in India the measurement of women empowerment in economic decision making is based on three indicators such as participation in the economic decision, final say on many large

household purchases or purchases for daily needs, and opinion on who decides how to spend money?. This type of index often provides the measurement of women empowerment under economic decision making. Empowerment in household decision refers to the extent of women's ability to participate in planning and executing decisions on domestic affair, child welfare, own health care, deciding what to do with money husband's earn and decision maker for using contraception in consultation with other male family members. The increased role would certainly provide stiffness to women to improve their self determination, save and use limited resources, status and power relations within households. In this study, It has been computed on the basis of three indicators such as women's participation on their own health care, deciding what to do with money husbands earn and decision maker for using contraception. The empowerment in physical movement refers to the freedom of women to move to necessary places without being support of anybody. Several studies have revealed that encouragement of women's freedom of movement is essential to make them capable of their own choices, to change their attitudes, to learn and to strong their stamina, to improve their social networks and to reduce their level of poverty. The women empowerment in physical movement is measured by making index on the basis of questions such as they are allowed to go to market, health facility and places outside this village/community and finally say on visits to their families or relative's house alone.

The suitability of the women empowerment is investigated using DHS data on factors such as age, place of residence, highest level of education, caste, religion and wealth index. The results based on women empowerment in accordance with age group indicate that mean of EDMI and PMI are found to be larger than HDMI. It may be due to the dominance of women opinion in the case of construction of EDMI and PMI rather than that of HDMI, where men are preferred. The mean number of total children ever born is almost less than 4.

The mean values of empowerment indices by place of residence and five year age group in accordance with mean of EDMI, HDMI and PMI with overall mean of total children ever born indicate that mean of EDMI, HDMI and PMI in urban areas are found to be larger than rural areas with significant difference in EDMI and PMI and at par difference in HDMI. The Indian women in the rural areas are unaware of their rights. The mean of total children ever born in urban areas is found to be less than rural areas due to their education, awareness, and perseverance in that region.

The mean values of empowerment indices by highest level of education and five year age group in accordance with mean of EDMI, HDMI and PMI with overall mean of total children ever born indicate that mean of EDMI and PMI in higher education groups are found to be larger than no education, primary and secondary groups while in the case of HDMI all education groups are found to be almost at par. The mean of total children ever born in higher education groups is found to be significantly lower followed by secondary, primary and no education groups. It may be because of education, awareness and other social taboos in higher education groups.

The mean values of empowerment Indices by caste and five year age group in accordance with mean of EDMI, HDMI and PMI with overall mean of total children ever born reveal that mean of EDMI is larger in scheduled tribes than that of SC and OBC while in the case of HDMI and PMI, ST is higher upto the age 29 years, after that it is found to be lower than SC and OBC categories. The mean of total children ever born is found to be lower in OBC than SC and ST, due to consistent patience, education and stability in this caste.

The mean values of empowerment Indices by religion and five year age group in accordance with mean of EDMI, HDMI and PMI with overall mean of total children ever born reveal that mean of HDMI and PMI is larger in Hindu Community rather than Muslims while in the case of mean of EDMI, Muslims have more women empowerment than Hindu, and because of Muslims women are given preference in the economic decision making. This result is consistent with the result given by Haque *et el*.(2011) for Bangladesh. However, Hindu Community throughout overall age group has less mean number of total children ever born, due to understanding, patience and more perseverance rather than Muslims.

The mean values of empowerment Indices by wealth index and five year age group in accordance with mean of EDMI, HDMI and PMI with overall mean of total children ever born reveal that mean of EDMI is smaller in richest wealth index up to the age 29 years, after that it is found to be higher than other categories of wealth index while in the case of HDMI, it is at par but in case of PMI richest wealth index has higher women empowerment in their reproductive span. The mean of total children ever born is found to be lower in richest wealth index than their counterparts, due to consistent patience, education and stability in these higher wealth index groups.

The level of women empowerment in physical movement decision making and economic decision making is satisfactory but the empowerment in household decision making is low. Older women have more empowerment than younger women because they have more experience with life, a better understanding and closer relationship with their husbands. On average, girls who marry in early ages, attain lower schooling levels, which cause lower self confidence, bargaining power, freedom of choices etc. as a result they have less reproductive control and suffer higher rates of maternal mortality and domestic violence and thereafter less empowerment.

Women empowerment is important for the development of any nation. Therefore, a number of factors may be utilized in the construction of women empowerment index at least at the micro level study depending upon the availability of data. This would certainly focus the core of the women empowerment and contribute about the progress of the country.

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