# Dimensions of women Autonomy in Household Decision making in Rural Punjab

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**Abstract:** All round prosperity ushered in the state of Punjab (India) in mid sixties as a result of technological changes in the form of green revolution in the agricultural sector. The question that needs to be looked into is whether changes in technological and economic development in the state had positive effect on women's status, welfare and empowerment. Statistics indicate that high gender disparities still persist in the state. The low sex ratios at birth (893 females to 1000 males) and in 0-6 age group (847 females to 1000 males) in the state are much less than the National average of 943 and 914 respectively as per 2011 census. There has been decline in Female Work Participation Rate (FWPR) in Punjab by 5.2% in 2011 from previous census of 2001. FWPR in Punjab was 13.9% in2011 as compared to 25.5% at the National level and 55.2% for male work participation in the state. The success of green revolution has pushed women who were important contributors back into household domai. To determine relative independent factors in determining women's autonomy in household decision making, the analysis has been carried out with the objectives to examine the socio-economic indicators contributing to women's autonomy and to study the status of women in rural Punjab.This study has been carried out in all the three differentiated soil zones of the state of Punjab representing the whole Punjab. These were South-Western Punjab,Central Punjab and eastern Punjab. A multistage stratified random sampling technique was used to select districts, blocks, villages and households from three soil zones of Punjab.Three districts were randomly selected from three soil zones and from these three districts two blocks from each each district was randomly selected.Thus in all 12 villages were selected from selected blocks. The list of cultivator households was set in ascending order of their operational area, cumulative frequency was obtained and distribution transformed to arrive at three different groups of farm sizes (small, medium and large farms). Women respondents (married) from these farm size groups and landless households were enlisted. The household sample included 25 randomly selected households per village making a total sample of 300 from three sample districts. These sample households were selected based on their proportion to the total number of households. Primary and secondary data were collected to achieve the objectives of the study. The secondary data were collected from Human Development Report (2013) of UNDP, Statistical Abstract of Punjab (2012), Economic survey of India and Punjab (2012-13), Census reports and various reports of the centre and state government.

For collection of the primary data, comprehensive survey of sample districts of Punjab was conducted for the year 2014. An especially prepared schedule was used to collect information for the various aspects like demographic profile of the respondents: household size, sex composition of children, age, education, husband's education, number of children, type of family, marital status, marital duration, caste etc. and participation in household decision making by the respondents on various social and economic matters. For analyses of the sample data, different research methods were used.

For examining socio-economic profile of the sample respondents a simple tabulation technique was used to work out simple averages, ratios and percentages Multivariate logistic

regression techniques were used to identify the factors determining women's status in household decision making in socio-economic matters. Backward Step wise Multivariate Logistic Regression was estimated to identify key factors in determining women's status in household socio-economic decision making.The study revealed that that decisions taken independently by the women are maximum among small farms and lowest for large farms. Decisions taken by husband and others are maximum for large farms and minimum for small farm categories. Women are involved little in making major economic decisions. District wise, it has been observed that respondents of Hoshiarpur are the most assertive in independent decisions followed by those in Amritsar and Bathinda are the least. This may be due to higher percentage of literacy in Hoshiarpur district and also due to the fact that some of the spouses of respondents are foreign based and sending money to their wives on regular basis for sustenance. In the absence of their spouses, women are free to assert their say in economic and social matters To conclude it can be inferred from the results of the logit analysis that age of the respondent, family structure, her control over household income, her personal or earned income and savings appear to influence almost all the aspects of women's autonomy in household decision making. Growing age, nuclear family and full or partial control over income by the respondents contribute positively and very significantly to her status. Respondent's income, savings, highest level of education (Coll/Univ) and her work status also affect decision outcomes and are explanatory factors partially contributing to her status.

## Introduction

All round prosperity ushered in the state of Punjab(India) in mid sixties as a result of technological changes in the form of green revolution in the agricultural sector . The question that needs to be looked into is whether changes in technological and economic development in the state had positive effect on women's status, welfare and empowerment. Statistics indicate that high gender disparities still persist in the state. The low sex ratios at birth (893 females to 1000 males) and in 0-6 age group (847 females to 1000 males) in the state are much less than the National average of 943 and 914 respectively as per 2011 census. There has been decline in Female Work Participation Rate (FWPR) in Punjab by 5.2% in 2011 from previous census of 2001. FWPR in Punjab was 13.9% in2011 as compared to 25.5% at the National level and 55.2% for male work participation in the state. The success of green revolution has pushed women who were important contributors back into household domain. The state achieved female literacy rate of 70.7% which was lower than male literacy of 80.4% in 2011.Punjab ranked 14th in Human and Gender development indicators (HDI and GDI) among 32 states/UTs but value of GDI was less than HDI indicating low status of women. Also GDI does not take into account sex ratios and female work participation for calculation. There has not been any integrated and comprehensive study on deeper analysis of status of rural women in Punjab. The present study is an in-depth search of these aspects in the state so as to come out with appropriate policy measures to shape the destiny of rural women in terms of her status in household decision making.

Most of the literature is in line with the thought that both women's autonomy and socio-economic indicators should be analyzed to have complete understanding of the determinants of the status of women. Socio-economic indicators of a woman are not adequate and sufficient enough to capture gender power relations and bargaining strength at household level. The power to take decision at household and community level by a woman is extremely important indicator for judging the status of rural women. The position and socio-economic status of women is reflected in their ability to take decisions in socio and economic matters in household and in the community.

"Autonomous decision making has been associated with women having the capacity to consider alternatives, to determine their own preferences and carry these out. It is often measured by women having final say in household decisions" (Deere and Twyman, 2011). Her participation in decision making is regarded a strong indicator of her familial status. To determine relative independent factors in determining women's autonomy in household decision making, the analysis has been carried out with the following objectives :

To examine the socio-economic indicators contributing to women's autonomy and to study the status of women in Punjab.

**Data Base and Methodology**

This study has been carried out in all the three differentiated soil zones of the state of Punjab. These are:

1. South-Western Punjab
2. Central Punjab
3. Eastern Punjab

**Sampling Design**

A multistage stratified random sampling technique was used to select districts, blocks, villages and households from three soil zones of Punjab.

Three districts in all, one each from three zones were randomly selected. Bathinda district from southwestern Punjab, Amritsar from central and Hoshiarpur district from Eastern Punjab were randomly selected.

A list of all development blocks falling under these selected districts (Amritsar, Bathinda and Hoshiarpur) of three soil zones was compiled. Two blocks were randomly selected from each district( Tb 1).

Two villages from each block were randomly selected. In all 12 villages were selected.

The list of cultivator households was set in ascending order of their operational area, cumulative frequency was obtained and distribution transformed to arrive at three different groups of farm sizes (small, medium and large farms). The small farm size obtained at was below 2 hectares (ha), medium size between2-4 ha and large size was above 4 ha. Women respondents (married) from these farm size groups and landless households were enlisted. The household sample included 25 randomly selected households per village making a total sample of 300 from three sample districts. These sample households were selected based on their proportion to the total number of households. Table 3.3 gives detail of the sample of the study area.

## Table 1 : Detail of the Study Area

| Agricultural soil zones | Central Punjab | | | | | | | | Eastern Punjab | | | | | | | | South -Western Punjab | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Districts Selected | Amritsar | | | | | | | | Hoshiarpur | | | | | | | | Bathinda | | | | | | | |
| Blocks Selected | Chogawan | | | | Jandiala | | | | Hoshiarpur II | | | | Tanda | | | | Maur | | | | Bathinda | | | |
| Villages Selected | Thathi | | Thatha | | Ballian Manjpur | | Gadli | | Chagran | | Tanuli | | Bhulpur | | Rajpur Ghot | | Bagher Muhabbat | | Natt | | Khemuana | | Goniana Khurd | |
| Details of sample | Total Household | Selected Household | Total Household | Selected Household | Total Household | Selected Household | Total Household | Selected Household | Total Household | Selected Household | Total Household | Selected Household | Total Household | Selected Household | Total Household | Selected Household | Total Household | Selected Household | Total Household | Selected Household | Total Household | Selected Household | Total Household | Selected Household |
| L.F. | 19 | 5 | 12 | 3 | 32 | 5 | 22 | 3 | 7 | 1 | 15 | 2 | 15 | 2 | 0 | 0 | 20 | 5 | 10 | 2 | 40 | 3 | 61 | 4 |
| M F | 15 | 4 | 22 | 6 | 34 | 6 | 46 | 8 | 8 | 2 | 31 | 3 | 34 | 2 | 10 | 2 | 16 | 4 | 73 | 7 | 35 | 2 | 147 | 8 |
| S.F. | 34 | 8 | 35 | 9 | 50 | 8 | 37 | 7 | 70 | 8 | 74 | 8 | 205 | 10 | 40 | 9 | 15 | 4 | 100 | 10 | 160 | 8 | 150 | 9 |
| Landless households | 33 | 8 | 30 | 7 | 35 | 6 | 36 | 7 | 220 | 14 | 180 | 12 | 220 | 11 | 94 | 14 | 64 | 12 | 60 | 6 | 250 | 12 | 72 | 4 |
| Total | 101 | 25 | 99 | 25 | 151 | 25 | 141 | 25 | 305 | 25 | 300 | 25 | 474 | 25 | 144 | 25 | 115 | 25 | 243 | 25 | 505 | 25 | 420 | 25 |

**Note:** L.F –Large Farms (> 4 ha), M.F – Medium Farms (2-4 ha) and S.F – Small Farms (< 2 ha)

**Database**

Primary and secondary data were collected to achieve the objectives of the study. The secondary data were collected from Human Development Report (2013) of UNDP, Statistical Abstract of Punjab (2012), Economic survey of India and Punjab (2012-13), Census reports and various reports of the centre and state government.
For collection of the primary data, comprehensive survey of sample districts of Punjab was conducted for the year 2014. An especially prepared schedule was used to collect information for the following aspects:

1. Deamographic profile of the respondents: household size, sex composition of children, age, education, husband's education, number of children, type of family, marital status, marital duration, caste etc.
2. Employment pattern and income derived from various sources, assets, and ownership of resources and social Participation.
3. Participation in household decision making by the respondents on various social and economic matters.

**Methods of Analysis**

For analyses of the sample data, different research methods were used. For examining socio-economic profile of the sample respondents a simple tabulation technique was used to work out simple averages, ratios and percentages.

**Decision Making Areas**

In the study five areas of women involvement in decision making were considered for two broad household economic and social decision matters:

**a) Economic Related Decisions:**

1. Expenditure on consumer goods
2. Day to day expenditure
3. Expenditure on personal needs

**b) Social Related Decisions**

1. Personal health care
2. Whom to vote

**Logistic Regression Analysis**

Multivariate logistic regression techniques were used to identify the factors determining women's status in household decision making in socio-economic matters.

Backward Step wise Multivariate Logistic Regression was estimated to identify key factors in determining women's status in household socio-economic decision making. Each question in the schedule had three responses: (1) respondent alone (2) respondent and husband (3) husband and others. To create a binary variable for the analysis, the first two responses were grouped (in which she has some power) as yes (1) and response III (in which she has no say in the decision) as no (0). Case is that of a sampled respondent's involvement in household decision making (Y=l) or otherwise (Y=0). The socio-economic status characteristics obtained from the data were age, work status, marital status, maritalducation of the respondent, education of the spouse, family type, community participation, control over income, women's income and women's saving. Analysis has been conducted using SPSS version 18.0. The association between the predictive (socio background) factors and outcome measures of women decision making was explored using cross tabulation. Bivariate logistic regression was examined to assess significance of level of association of decision outcomes with socio-economic factors. Factors found to be significantly associated ($p<.05$) with outcome measures in bivariate analysis were put to test in backward stepwise Multivariate Analysis to generate odd ratios in order to identify variables which affect respondent's status in various socio-economic decision matters. In order to check collinearity between explanatory variables, the Person's correlation coefficient(r) was tested for p- significance. "Backward stepwise method (BSTEP) is used in multivariable logistic regression to determine the relative independent factors as predictors of women's autonomy in decision making" (Acharya et al., 2010). BSTEP regression starts with model that includes all predictive variables.It then removes the least significant covariate i.e the one with the highest p – value at each step until all the predictors are significant.

"Dummy variables are used when an explanatory variable is categorical to contrast various categories. There is need to choose a baseline category and create two or more dummy variables. In LR, for each variable, in the present case first category has been taken as the reference category or baseline category and contrast has been made of all remaining categories with the base line. "If explanatory variable has k categories, k-1 dummy variables are required to work out the differences in the categories with respect to the dependent variable" (Trammer and Eliot,2008).

"Exponential (B) gives relative odds or odd ratios for a particular explanatory variable given other explanatory variables in the model. If the Confidence Interval for Exponential (B) is .93 to 1.23, it indicates that women are between .93 and 1.23 times as likely to take decision i.e. the range has a lower limit of slightly less than the base category and upper limit of slightly more than the reference category. When exponential (B) =1, it means equal likely to take decisions, if >1 means more likely to take decision and if < 1 means less likely to take decision than the reference category (I.bid)

**The Logit Model**

The study deals with dichotomous outcome of the dependent variable(Y). The outcomes are woman respondent taking household decision (Y=1) or otherwise(Y=0). The logit model has been estimated as given below:

Specified model is:

If $P_i$ is the probability that a woman takes decision, the logit model considers the following relationship:

$$P_i = E(Y = 1/X_1) = 1/1 + e^{-zi} \quad (1)$$

Where $Zi=\beta_0+\beta_1X_{1i}+------\beta_kX_{ik}$

= n(1) is known as the (cumulative) logistic distribution function

So, $1-P_i$ = probability of a woman not taking decision = $1-e^{zi}$

Therefore, $\frac{P_i}{1-P_i}$ represents the odds ratio in favour of the incidence viz ratio of the probability that woman takes decision to the probability that she does not take decision.

Now, $$L_i = \log\left(\frac{P_i}{1-P_i}\right) = Z_i + \beta_0 + \sum_{1=1}^{k} \beta_i X_i$$

Specified logit model used to predict the odds of a woman taking various socio-economic household decisions in sample districts is:

$$L_i = \log\left(\frac{P_i}{1-P_i}\right)$$

$$=\alpha_0+\beta_1 X_1 \text{ (age)}+\beta_2 X_2 \text{ (m.status)} +\beta_3 X_3 \text{ (edu.)}+\beta_4 X_4 \text{ (n.children)}+\beta_5 X_5 \text{ (m dur)}+$$

$\beta_6 X_6$ (f.type)$+\beta_7 X_7$ (h.edu) $+\beta_8 X_8$ (w.s)$+\beta_9 X_9$(c.o.inc)$+ \beta_{10} X_{10}$(h. status)$+ \beta_{11}X_{11}$ (com part)$+ \beta_{12} X_{12}$(l.own)$+\beta_{13} X_{13}$ (w .inc)$+ +\beta_{14} X_{14}$ (w.sav)$+ \beta_{15} X_{15}$ (caste) $+\beta_{16} X_{16}$ (dist.)

$$\text{As } L_i = \log\left(\frac{P_i}{1-P_i}\right)$$

$$\text{Therefore antilog } L_i = \frac{P_i}{1-P_i}$$

Interpretation in terms of odds is obtained by taking antilog of the various slope coefficients.

The explanatory variables for the logit model for the sample cases are as explained in the following text:

$X_1$ = Age (years)

1 – <35 years

2 – > 35 years

$X_2$ = Marital Status

1 – Married

2 – Single(Widow/Divorced)

$X_3$ = Education level of women

0 – illiterate

1 – primary

2 – middle

3 – high

4 – senior secondary

5 – College / Univ.

$X_4$ – Number of children

1 – < 3 children

2 – > than 3

$X_5$ – Marital Duration

1 - < 5 years

2 - >5 years

$X_6$ – Family Type

1 – nuclear family

2 – joint family

$X_7$ – Husband's education level

0 – Illiterate

1 – primary

2 – middle

3 – high

4 – senior secondary

5 – college/university

$X_8$ – Work status

0 – Not employed

1 – Employed

$X_9$ – Control over household income

0 – No control

1 – Partial Control

2 – Full Control

$X_{10}$ – Husband's status

1 – Farmer
2 – Business
3 – Service
4 – Wage earners
5 – Politician

$X_{11}$ – Community Participation

0 – Not a member of any organization
1 – Member of an organization

$X_{12}$ – Land ownership

1 – If women is owner of land/house
0 – Otherwise

$X_{13}$ – Women's Income:

0- Nil
1- Up to Rs 15,000
2- Rs 15,000-30,000
3- Above Rs 30,000

$X_{14}$ – Women saving:

0- Nil
1- Up to Rs 15,000
2- Rs 15,000 – 30,000
3- Above Rs 30,000

$X_{15}$ – Caste

1- Forward or upper caste
2- Backward caste
3- Scheduled caste

$X_{16}$ – District:

1- Amritsar
2- Hoshiarpur
3- Bathinda
μ- Random Error Term

$B_0$ – Intercept term

$B_1$ – $B_{16}$ – Regression Coefficients

**Description of the Variables and Hypothesis Thereof**

Our main objective is to explore the relationship between women's socio-economic status and autonomy in household decision making. Household decision making is expected to be associated with range of socio-economic characteristics.

**$X_1$ – Age**

It is hypothesized that this variable bears a positive sign as it is expected that in our society, women's status in the household increases with age, i.e. age of the respondent increases her power of decision making. Category 1 (less than 35 years) is taken as reference or base line category to determine odd ratios in logistic regression models.

**$X_2$ – Marital Status**

Marital status indicates whether the respondent is married or single (widowed or divorced). Married women's decision making is hypothesized to be less than the single women who might be associated with greater economic autonomy as they are not constrained seeking their partners consent or agreement in household decisions. Married category (1) is the reference category for determining odds.

**$X_3$ – Educational Level of the Respondents**

Education is positively associated with women's empowerment and participation in household decision making. Hence the expected sign of the relationship between education and dependent variable is positive. Illiterate category (1) has been put up as reference in odd ratios.

**$X_4$ – Number of Children**

It is expected that responsibilities of a woman increases with more number of children as such decision making increases with more number of children at household level. So it is hypothesized that the expected sign in LR model is positive. Category of less than three children (1) is taken as a reference category in LR models.

**$X_5$ – Marital Duration**

Women of longer duration marriage can participate more in household decision making as compared to shorter duration, so it is hypothesized that X7 bears positive relationship with decision making. Shorter duration category (1) is the reference category for computation of odd ratios.

**$X_6$ – Type of Family**

Women in the nuclear family set-up are independent in taking decisions as against those of joint set-up where women autonomy is expected to be less as it is more in the elders' hands or the head of the family. So it is hypothesized that the sign in LR model is negative i.e. women in joint set—up have less autonomy. Nuclear family category (1) is taken as a reference category in LR models.

**$X_7$ – Husband's Qualifications**

An educated husband is expected to be sensitive to his spouse's needs, rights and duties. Education can bring behavioral change in the form of good adjustments and as a result educated spouses can increase women's autonomy in household decision making. Expected sign in LR of this variable is positive. Illiterate category (1) becomes the reference category for determining odds in LR models

**$X_8$ – Work Status**

Women's employment is positively related to their status cross culturally i.e the decision making of a woman increases with her work status. She becomes more independent, aware of her outside world, better informed and as she earns, her status increases and so does her decision making at home. So, the variable is expected to have positive relationship in the model. Not employed category (1) is the reference category for LR models.

**$X_9$ – Control of Income**

A person who has access or control over income can influence decision making at household level to a great extent. So is is hypothesized that X8 bears positive relationship with decision making. No control on household income (1) is the reference category for LR models.

**$X_{10}$ – Husband's Status**

Husband's status can influence decision making considerably in a positive and a negative way. Husband's status in our study can be a farmer, a businessman, in service, wage earner or a politician. The respondent in this study as farmer spouse has been put under the category = 1 and subsequently other dummy variables are assigned. Expected sign in LR of this variable is hypothesized to be negative for businessman, positive for in service spouse and wage earners. Farmer category is the reference category to determine odd ratios.

**$X_{11}$ – Community of Social Participation**

Women participating in these organizations are more informed and well aware of the outside world. Expected sign in LR of this variable is positive. Respondents having no community participation (category 1) are the reference category in LR model.

**$X_{12}$ – Land Ownership**

Woman who has ownership rights in the form of title of land or other assets is expected to give her access to economic resources independently of men. This increases and her family's welfare subsequently and can bring positive effect on her autonomy in decision making.

**$X_{13}$ – Women's Income**

Women's income supplements household income. As income increases due to respondents earnings, economic condition of the household improves and respondent can satisfy her own and children's need in a better way and hence her decision making improves. Being economically independent, woman tends to improve her own status at home and in society. Hence the expected sign of the relationship between women's income and dependent variable is positive. Women having no income (1) are the reference category for the model.

**$X_{14}$ – Women's Savings**

Women's savings can also affect their status in a positive way. Woman having savings is more confident, feel economically secured, if old, is looked after well by her children, can deal with personal health, personal needs and other related decisions in a big way. So this variable is expected to play a positive role in household decision making. So the expected sign is positive. Women with no saving (1) are the reference category for LR models.

**$X_{15}$ – Caste**

The categorization of caste into forward, backward and scheduled caste brings in difference in their perception about status of women, her role in decision making. Forward caste is mainly patriarchal, does not give due status to women in society and expected sign in LR for women's decision making is negative. Backward caste mindset again is patriarchal, though less than in the previous case. Scheduled caste respondents earn their livelihood and their dependence on their spouses is less compared to forward caste, so their expected effect on women decision making is positive. Forward caste category (1) is taken as a reference category for determining odds in LR models.

**$X_{16}$ – Region/District**

Amritsar, Hoshiarpur and Bathinda are the sample districts for the study. Amritsar is chosen as a reference category for the model.

**Determinants of Status of Rural Women**

To determine relative independent factors in determining women's autonomy in household decision making. The analysis has been carried out in two sub- sections:

A) Explores association of women's autonomy in household decision making with a set of socio-economic status variables using cross tabulations.

B) Evaluates bivariate and multivariate logistic regression models to identify key determinants of the status of women in household decision making.

**Autonomy of Rural Women in Decision Making**

Table 2 and 3 depicts participation of sample women in decision making in various economic and social household matters respectively.

Results of cross tabulations(Table 2 and 3)show that in rural Punjab,pattern of independence in women's decision making varies along various decision outcomes.

**Economic Decision Matters**

**Expenditure on Consumer Goods**

Table 2 reveals that in the sample districts, majority (77.33%) of the respondents participate in decision on expenditure on consumer goods, (household consumer durable, kitchen gadgets, furniture etc.). Results indicate that demographic factors influencing higher involvement of women are her growing age (80.1%), her nuclear set up (93.2%) and longer duration of marriage (83.5%) as compared to their corresponding reference categories. Increase in education of the respondent and her spouse have not affected increase in her autonomy. Economic empowerment

of the respondent promotes her autonomy in buying consumer durables. 90.3% of employed respondents 94.7% of those with higher income, 100% of those having savings participate which imply that economic independence have substantial part to play in increasing her autonomy.

**Expenditure on Personal Needs**

Results of women's involvement in expenditure on her personal needs (on items of personal consumption, clothes, accessories, cosmetics etc.) indicate that 61% of the respondents from sample districts have sole autonomy in the decision. Of those participating, more are from growing age (75.1%), from nuclear families (53.1%) and with longer duration of marriage (67.3%). Increased education of respondent and her spouse does not reflect any higher decision making on her part. Economic factors indicate that autonomy in the decision is higher for those having full control over income (81.5%) and those having personal saving (83.3%). Husband in service allow more freedom of taking decision to respondents (77.3%) as compared to other categories (Table 1).

**Day to Day Expenditure**

49% of respondents in the sample districts participate in the decision either independently or in consultation with their spouses. Growing age respondents (60.6%), those in nuclear set up (72.2%), single women (78.6%) show higher autonomy whereas increased education level of respondents and her spouse do not exhibit any increased involvement in day to day expenditure. Economic factors empower the respondent to participate more. Employment of the respondent makes her assert more (62.9%). 96.2% of the respondents who have full control over income have the final say in daily expenditure. Women's income and savings also contribute in their involvement in decision making. The possible reason may be that access to money and economic independence make it possible for them to handling day to day expenditure. Higher percentage (71.4%) of respondents in community organizations are also the ones exercising their increased power in DM (Table 6.6)

**Table 2 : Percentage of Women Participation in Economic Decision Matters**

| Background Characteristics | Expenditure on Consumer Good | Expenditure on Personal Needs | Day-to-Day Expenditure |
|---|---|---|---|
| **Districts** | | | |
| Amritsar | 78 | 63 | 54 |
| Hoshiarpur | 84 | 69 | 58 |
| Bathinda | 70 | 51 | 35 |
| Average | 77.33 | 61 | 49 |
| **Demographic Factors** | | | |
| **Age** | | | |
| <35 years | 57.9 | 36.4 | 27.1 |
| >35 years | 80.1 | 75.1 | 60.6 |
| **Educational Qualification** | | | |
| Illiterate | 83.3 | 69.4 | 56.8 |
| Primary | 71.2 | 53 | 54.5 |
| Middle | 76.2 | 61.9 | 50 |
| High | 84.8 | 52.2 | 32.6 |
| Secondary | 70.4 | 63 | 25.9 |
| Coll/Univ. | 87.5 | 62.5 | 50 |
| **Marital Status** | | | |
| Married | 76.9 | 60.5 | 47.2 |
| Single | 85.7 | 78.6 | 78.6 |
| **Caste** | | | |
| Forward | 73.8 | 62.4 | 39.6 |
| Backward | 78 | 68.3 | 58.5 |

| | | | |
|---|---|---|---|
| Scheduled Caste | 82.6 | 57.8 | 57.8 |
| **Family Type** | | | |
| Nuclear | 93.2 | 53.1 | 72.2 |
| Joint | 58.7 | 21.7 | 21 |
| **Marital Duration** | | | |
| < 5 years | 37.5 | 22.5 | 15 |
| > 5 years | 83.5 | 67.3 | 53.8 |
| **No. of Children** | | | |
| < 3 | 7s4.1 | 57.2 | 43.6 |
| > 3 | 91.2 | 78.9 | 70.2 |
| **Husband Qualification** | | | |
| Illiterate | 88.5 | 55.8 | 63.5 |
| Middle | 69.6 | 57.1 | 50 |

| **Background Characteristics** | **Expenditure on Consumer Good** | **Expenditure on Personal Needs** | **Day-to-Day Expenditure** |
|---|---|---|---|
| Primary | 73.3 | 70 | 60 |
| High | 76.5 | 55.6 | 37 |
| Secondary | 78.4 | 67.6 | 40.5 |
| Coll/Uni | 86 | 71.4 | 28.6 |
| **Husband Status** | | | |
| Farmer | 73.9 | 61.3 | 38 |
| Business | 85.7 | 57.1 | 57.1 |
| Service | 81.8 | 77.3 | 63.6 |
| Wage Earner | 80.6 | 58.1 | 59.1 |
| Politician | 72.7 | 63.6 | 50 |
| **Economic Factors** | | | |
| **Work Status** | | | |
| Not Employed | 73.9 | 59.7 | 45 |
| Employed | 90.3 | 67.7 | 62.9 |
| **Control over Income** | | | |
| No | 70.3 | 52 | 33.2 |
| Partial | 90.1 | 80.3 | 76.1 |
| Full | 96.3 | 81.5 | 96.2 |
| **Women Income** | | | |
| Nil | 69.5 | 35.3 | 38.5 |
| < Rs15,000 | 88.9 | 45.7 | 59.3 |
| Rs15000--30,000 | 92.3 | 43.1 | 84.6 |
| > Rs30,00 | 94.7 | 52.6 | 78.9 |
| **Women Saving** | | | |
| Nil | 68.3 | 53.5 | 40.1 |
| < Rs15,000 | 86 | 68 | 57 |
| Rs15,000-30,000 | 93.3 | 80 | 80 |
| >30,000 | 100 | 83.3 | 55.6 |
| **Land Ownership** | | | |

| | | | |
|---|---|---|---|
| No | 76.8 | 60.4 | 47.8 |
| Yes | 100 | 100 | 85.7 |
| **Social Factors** | | | |
| **Community Participation** | | | |
| No | 76.6 | 59.6 | 45.7 |
| Yes | 82.9 | 74.3 | 71.4 |

**Source:** Field Survey
**Note:** Decision making = Respondent (Own) + (Respondent +Husband) (Joint)

**Social Decision Matters**

**Personal Health Care**

Women's autonomy in health care decision making is extremely important for better maternal and reproductive health decisions as well as her access to health services. Results indicate that women in sample districts are quite conscious of their health as 84% decide the matter of their own or jointly with their husbands. Percentage of say is very high for respondents with growing age (89.6%), Coll/Univ. educated (100%), in nuclear families (89.5) as compared to their corresponding categories. Economic empowerment also tends to influence her say in decision. 96.8% of those employed, 100% of those having full control over income and all respondents with personal income and savings are fully autonomous in this regard. Ownership of land also ensures full autonomy to the respondent in the matter.

**Whom To Vote**

Poor political participation is indicated by the respondents in sample districts. On an average, 17% of sample respondents involve themselves in decision making. Major demographic factors allowing independence in decision to vote are respondent's highest level of education (62.5%). Economic independence of the respondent shows no higher participation in her decision to vote. Work status (29%) of the respondent and her control over income (40.7%) allow her to involve in DM whereas her personal income and savings have no major role to play in decision making. Those in community participation are more empowered and hence take considerable interest in decision making (34.3%) compared to non participators.

Females (more than two-third of the total sample) take their own decision in household expenditure on consumer goods, their personal needs and day to day expenditure. Further, strength of power of decision making in such financial matters is centered more in the elder ones (age above 35 years), literates, single women, employed/economically independent with less role of caste.

As in economic matters, participation of rural women in decisions related to social matters varies over districts as well as farm sizes. Here the position is better. Women are more autonomous in personal health (visiting health centres, getting medicines etc) . However their right to vote/whom to vote is decided mostly by their husbands/elders. Here again frequency of women observed to take own decisions is among highly educated and those active in social participation.

**Table 3 : Percentage of Women Participation in Social Decision Matters**

| Background Characteristics | Personal Health | Whom to Vote |
|---|---|---|
| **District** | | |
| Amritsar | 86 | 16 |
| Hoshiarpur | 88 | 25 |
| Bathinda | 78 | 10 |
| Average | 84 | 17 |
| **Demographic Factors** | | |
| **Age** | | |
| <35 years | 73.8 | 14 |

| | | |
|---|---|---|
| >35 years | 89.6 | 18.7 |
| **Educational Qualification** | | |
| Illiterate | 87.4 | 13.5 |
| Primary | 75.8 | 12.1 |
| Middle | 81 | 21.4 |
| High | 84.8 | 19.6 |
| Secondary | 88.9 | 18.5 |
| Coll/Univ | 100 | 62.5 |
| **Marital Status** | | |
| Married | 83.9 | 16.8 |
| Single | 85.7 | 21.4 |
| **Caste** | | |
| Forward | 81.2 | 15.4 |
| Backward | 82.9 | 22 |
| Scheduled | 88.1 | 17.4 |
| **Family Type** | | |
| Nuclear | 89.5 | 14.8 |
| Joint | 77.5 | 19.6 |
| Marital Duration | | |
| < 5 Years | 67.5 | 17.5 |
| > 5 Years | 86.5 | 16.9 |
| **No. of Children** | | |
| < 3 | 81.9 | 15.2 |
| > 3 | 93 | 24.6 |
| **Husband Qualification** | | |
| Illiterate | 92.3 | 11.5 |
| Primary | 88.3 | 13.3 |
| Middle | 78.6 | 14.3 |

| **Background Characteristics** | **Personal Health** | **Whom to Vote** |
|---|---|---|
| High | 76.5 | 21 |
| Secondary | 86.5 | 21.6 |
| Coll/Univ | 92.9 | 28.6 |
| **Husband Status** | | |
| Farmer | 79.6 | 12.7 |
| Business | 85.7 | 28.6 |
| Service | 90.9 | 31.8 |
| Wage Earner | 86 | 15.1 |
| Politician | 93.5 | 27.3 |
| **Economic Factors** | | |
| **Work Status** | | |
| Not Employed | 80.7 | 13.9 |
| Employed | 96.8 | 29 |
| **Control over Income** | | |
| No | 77.2 | 11.4 |
| Partial | 97.2 | 23.9 |
| Full | 100 | 40.7 |
| **Women Income** | | |
| Nil | 75.4 | 13.4 |

| | | |
|---|---|---|
| < Rs. 15,000 | 97.5 | 16 |
| Rs 15,000-30,000 | 100 | 53.8 |
| > Rs. 30,000 | 100 | 31.6 |
| **Women Saving** | | |
| NIL | 73.7 | 12 |
| < Rs. 15,000 | 96 | 23 |
| Rs 15,000-30,000 | 100 | 26.7 |
| > Rs. 30,000 | 100 | 22.2 |
| **Land Ownership** | | |
| No | 83.6 | 16 |
| Yes | 100 | 57.1 |
| **Social Factors** | | |
| Community Participation | | |
| No | 82.3 | 14.7 |
| Yes | 97.1 | 34.3 |

**Source:** Field Survey

**Bivariate Analysis**

In this section, bivariate logistic regression will be examined to assess significance of level of association of decision outcomes with socio-economic factors. Factors found to be significantly associated ($p<.05$) with outcome measures will be put to test in Multivariate Analysis to identify variables which affect respondent's status in various socio-economic decision matters. Tables 4 and 5present the odds ratios from logistic regression (two variable model) in which case dichotomy of participation in the decision making (own and jointly with the husband) is the dependent variable. All the independent variables (socio-economic) are categoricals. The reference categories for different independent variables are: (a) District-Amritsar; Age group - <35 years; Education- Illiterate; Marital status-married; Family type- Nuclear; Marital duration-< 5years; Number of children - <3; Husbands qualification- Illiterate; Husband status-Farmer; Work status- not employed; Control over income- No; Women's income- nil; Women's savings- nil; Land ownership- No; Community Participation—No.

**Table 4: Bivariate Analysis (Economic Decision Matters)**

| Socio-economic Characteristics | Categories | Expenditure on Consumer goods | Expenditure on personal needs | Day to Day Expenditure |
|---|---|---|---|---|
| | | **O.R.** | **O.R.** | **O.R** |
| Districts | Amritsar | 1.0 | 10 | 1.0 |
| | Hoshiarpur | $1.48^{NS}$ | $1.31^{NS}$ | $1.13^{NS}$ |
| | Bathinda | 0.66* | 0.61* | 0.41** |
| **Demographic Factors** | | | | |
| Age | <35 yrs | 1.0 | 1.0 | 1.0 |
| | >35 yrs | 5.36*** | 4.30*** | 4.14*** |
| Women Education | Nil | 1.0 | 1.0 | 1.0 |
| | Primary | $0.647^{NS}$ | $0.47^{*}$ | $0.91^{NS}$ |
| | Middle | $0.84^{NS}$ | $0.72^{NS}$ | $0.76^{NS}$ |
| | High | $1.45^{*}$ | $0.48^{*}$ | 0.36** |
| | Secondary | $0.62^{NS}$ | $0.75^{NS}$ | 0.26** |
| | Col/Univ. | $1.83^{**}$ | $0.73^{NS}$ | $0.76^{NS}$ |
| Marital Status | Married | 1.0 | 1.0 | 1.0 |
| | Single | $1.8^{NS}$ | $0.70^{NS}$ | 3.73* |

| | | | | |
|---|---|---|---|---|
| Family Type | Nuclear | 1.0 | 1.0 | 1.0 |
| | Joint | 0.104*** | 0.24*** | 0.102*** |
| Marital Duration | <5yrs | 1.0 | 1.0 | 1.0 |
| | >5 yrs | 8.41*** | 3.40 NS | 6.61*** |
| No. of Children | <3 | 1.0 | 1.0 | 1.0 |
| | >3 | 3.64** | 1.56NS | 3.41** |
| Husband Education | Nil | 1.0 | 1.0 | 1.0 |
| | Primary | 0.36* | 1.85NS | 0.86 NS |
| | Middle | 0.30* | 1.06NS | 0.58 NS |
| | High | 0.43 NS | 0.99NS | 0.34** |
| | Secondary | 0.47 NS | 1.65NS | 0.39* |
| | Col/Univ | 0.78 NS | 1.98NS | 0.23 NS |

| **Socio-economic Characteristics** | **Categories** | **Expenditure on Consumer goods** | **Expenditure on personal needs** | **Day to Day Expenditure** |
|---|---|---|---|---|
| | | **O.R.** | **O.R.** | **O.R** |
| Husband Status | Farmer | 1.0 | 1.0 | 1.0 |
| | Business | 2.11 NS | 0.87 NS | 2.17 NS |
| | Service | 1.59 NS | 3.86** | 2.85* |
| | W.Earner | 1.47 NS | 0.90* | 2.36** |
| | Politician | 0.94 NS | 1.14 NS | 1.63 NS |
| Caste | Forward | 1.0 | 1.0 | 1.0 |
| | Backward | 1.29 | 1.36 | 2.18* |
| | Scheduled | 1.72 | 0.86 | 2.11** |
| **Economic Factors** | | | | |
| Work Status | Not Employed | 1.0 | 1.0 | 1.0 |
| | Employed | 3.29** | 0.919 NS | 2.07** |
| Control on Income | No Control | 1.0 | 1.0 | 1.0 |
| | Partial Control | 3.86** | 3.60*** | 6.40*** |
| | Full Control | 10.99* | 3.61** | 25.19*** |
| Women's Income | Nil | 1.0 | 1.0 | 1.0 |
| | I. < Rs15,000 | 1.36** | 1.55NS | 1.89* |
| | II.15,000-30,000 | - | 0.76 NS | 11.27* |
| | III. > 30,000 | 3.83* | 2.23 NS | 7.04** |
| Women Savings | 0 Nil | 1.0 | 1.0 | 1.0 |
| | I. < Rs15,000 | 2.86** | 1.84* | 1.98** |
| | II.15,00030,000 | 4.20 NS | 2.38 NS | 5.97** |
| | III. > 30,000 | - | 4.34* | 1.87 NS |
| Land Ownership | No Ownership | 1.0 | 1.0 | 1.0 |

| | | | | |
|---|---|---|---|---|
| | Yes | - | - | 6.56 NS |
| **Social Factors** | | | | |
| Comm. Participation | No | 1.0 | 1.0 | 1.0 |
| | Yes | 1.48NS | 3.54 NS | 2.97** |

**Note:** OR=odds ratio; *p<0.05; **p<0.01; ***p<0.001

**Table 5 : Bivariate Analysis (Social Decision Matters)**

| Socio-economic Characteristics | Categories | Personal Health | To vote |
|---|---|---|---|
| | | **O.R** | **O.R** |
| Districts | Amritsar | 1.0 | 1.0 |
| | Hoshiarpur | 1.19 | 1.75 |
| | Bathinda | .58 | .87 |
| **Demographic Factors** | | | |
| Age | <35 yrs | 1.0 | 1.0 |
| | >35 yrs | 3.07*** | 1.39 |
| Women's Education | Nil | 1.0 | 1.0 |
| | Primary | .45* | .88 |
| | Middle | .61 | 1.74 |
| | High | .80 | 1.56 |
| | Secondary | 1.15 | 1.46 |
| | Col/Univ. | 2.332e8 | 10.67** |
| | | | |
| Marital Status | Married | 1.0 | 1.0 |
| | Single | 1.15 | 1.29 |
| Family Type | Nuclear | 1.0 | 1.0 |
| | Joint | .40*** | 1.40 |
| Marital Duration | <5yrs | 1.0 | 1.0 |
| | >5 yrs | 3.09** | 1.19 |
| No. of Children | <3 | 1.0 | 1.0 |
| | >3 | 2.93* | 1.86 |
| Husbands' Education | Illiterate | 1.0 | 1.0 |
| | Primary | .63 | 1.18 |
| | Middle | .31 | 1.28 |
| | High | .27* | 2.04 |
| | Secondary | .53 | 2.12 |
| | Col/Univ | 1.08 | 3.07 |

| Socio-economic Characteristics | Categories | Personal Health | To vote |
|---|---|---|---|
| | | **O.R** | **O.R** |

| | | | |
|---|---|---|---|
| Husband Status | Farmer | 1.0 | 1.0 |
| | Business | 1.54$^{NS}$ | 2.76 |
| | Service | 2.57$^{NS}$ | 3.21 |
| | W.Earner | 1.58$^{NS}$ | 1.22 |
| | Politician | 5.39 | 2.58 |
| Caste | Forward | 1.0 | 1.0 |
| | Backward | 1.11 | 1.55 |
| | Scheduled | 1.69 | 1.16 |
| **Economic Factors** | | | |
| Work Status | Not Employed | 1.0 | 1.0 |
| | Employed | 2.67*** | 2.54** |
| Control over Income | No | 1.0 | 1.0 |
| | Partial | 10.17** | 2.45* |
| | Full | 4.764 | 5.35*** |
| Women's Income | 0 Nil | 1.0 | 1.0 |
| | I. < Rs15,000 | 8.58*** | 1.39 |
| | II.Rs 15,000-30,000 | - | 2.00** |
| | III. > 30,000 | - | 3.15* |
| Women Saving | 0 Nil | 1.0 | 1.0 |
| | I. Up to Rs15,000 | 7.33*** | 2.33* |
| | II. 15,000-30,000 | 5.64 | 2.73 |
| | III. Above 30,000 | 5.64 | 2.143 |
| Land Ownership | No | 1.0 | 1.0 |
| | Yes | 3.16 | 6.98* |
| **Social Factors** | | | |
| Community Participation | No | 1.0 | 1.0 |
| | Yes | 7.33 | 3.02** |

**Notes:** OR=Odds Ratio; *p<0.05; **p<0.01; ***p<0.001

**Results of Bivariate Logit Analysis**

Tables 4 and 5 present odd ratios for the logistic regression in bivariate models for different decision outcomes

**Economic Decision Matters**

**Expenditure on Consumer Goods**

Estimates of odd ratios for respondents age, nuclear family, work status, longer marital duration, more number of children, her own income and control over her household income along with savings affect her decision making on expenditure on consumer goods positively and significantly ($p<.01$). Residents of Bathinda district are less likely to participate in decision making ($p<.05$) as compared to other sample districts. Hence women of higher age, employed, with more years in marriage, in nuclear set up, having more children, with control over household income, having personal income and savings are more likely to participate in this decision(Table 4).

**Expenditure on Personal Needs**

Odd ratios (Table 4) for respondent's age, her control over income and her savings, status of husband (service) indicate positive and significant affect on decision making on their personal needs. Odd ratios for family type indicate less likelihood of participation by respondent on decision making significantly at $p<.001$. Respondents with spouse in service assert more in satisfying their needs significantly at $p<.01$. Odd ratios for place of residence (district), Bathinda indicate lesser involvement of women on decision making significantly at $p<.05$. Wage earners as spouses affect decision making of respondents significantly (at $p<0.5$) and it is less than in case with husbands in service class. Hence women of growing age, having control over income, living in nuclear family and with husbands in service are more likely to participate in the decision outcome. Respondents with spouses as wage earners and respondents of Bathinda are less likely to participate in this decision outcome.

**Day to Day Expenditure**

Odd ratios for age, marital duration, control over income, indicate positive effect on decision making of the respondent (at $p<.001$). Respondents from nuclear family type take their own decisions with less freedom to those in joint family for day to day expenditure ($p<.001$). Odd ratios for work status, number of children, women savings (I & II Category), women's income ( all categories) community participation, husband in service and as wage earner affect decision making of the respondents positively (significantly at $p<.01$). Place of residence (district) Bathinda, both women and husband's education (high and secondary) have the effect of decreasing decision making of the respondents (significantly at $p<0.1$). Respondents from backward ($p<.05$) and scheduled caste ($p<.01$) show higher likelihood of participating in the outcome as compared to forward category. Hence, respondents of growing age, with longer duration of marriage, having control over income, employed, having more number of children, having personal savings, those involved in community participation are in power to assert participate in decision outcome. Respondents in joint families, from Bathinda district, women and spouses with high and secondary education are less likely to participate (Table 4)

**Social Decision Matters**

**Personal Health**

Personal health care by a woman is important as she looks after the whole family as well as herself because of her body's distinct health requirements. In the light of her autonomy in self health care, the effect of different socio-economic factors has been examined. Bivariate analysis indicates that odd ratios for age, work status, women's savings and income (I category) affect decision making of the respondent positively and significantly ($p<.001$). Odd ratios for joint family type affect decision making significantly at $p<.001$ but its association is less than those in nuclear families. Odd ratios for marital duration, number of children, control of income, women's income (I category) indicate positive effect on decision making significantly. Hence, respondents with greater than 35 years of age, with longer duration of marriage, having control over income, having more number of children, in income and saving category I are more likely to participate in this decision outcome. Respondents in joint families indicate less likelihood of participating in decision on personal health (Table 5)

**Whom to Vote**

Women's highest level of education (Coll/Univ), community participation and women's income (II category) affect respondent's decision to vote significantly at $p<01$. Women's economic empowerment (work status, own income, control over household income, savings and landownership) makes respondent assert in decision making significantly (at $p<.05$). Respondents of Hoshiarpur are more likely to involve whereas of Bathinda are less involved. Hence, respondents control over household income, greater than 35 years age, with highest level of education of coll/univ, involved in community organization, women's income, savings and having land ownership titles are more likely to have their say in decision to vote (Table 5)

**Table 6: Final Backward Stepwise Multivariate Logistic Regression Models (Economic Decision Matters)**

| Socio-Economic Characteristics | Categories | Expenditure on Consumer Goods | Expenditure on Personal Needs | Day to Day Expenditure |
|---|---|---|---|---|
| | | O.R | O.R | O.R |
| Districts | Amritsar | | | |
| | Hoshiarpur | | | |
| | Bathinda | | | |
| **Demographic Factors** | | | | |
| Age | <35 yrs | 1.0 | 1.0 | 1.0 |
| | >35 yrs | 3.85*** | 4.71*** | 5.37*** |
| Women Education | Illiterate | 1.0 | | |
| | Primary | 1.21 | | |
| | Middle | 1.46 | | |
| | High | 5.96** | | |
| | Secondary | 4.78 | | |
| | Col/Univ | 14.05* | | |
| Marital Status | Married | - | - | |
| | Single | - | - | |
| Family Type | Nuclear | 1.0 | 1.0 | 1.0 |
| | Joint | .053*** | .41*** | .07*** |
| Marital Duration | <5yrs | 1.0 | | 1.0 |
| | >5yrs | 5.70** | | 3.91* |
| No. of Children | <3 | 1.0 | | |
| | >3 | 4.71** | | |
| Husband Education | Nil | | - | |
| | Primary | | | |
| | Middle | | | |
| | High | | | |

| Socio-Economic Characteristics | Categories | Expenditure on Consumer Goods | Expenditure on Personal Needs | Day to Day Expenditure |
|---|---|---|---|---|
| | | O.R | O.R | O.R |
| Husband Status | Farmer | - | | 1.0 |
| | Business | - | | 1.48 |
| | Service | - | | 3.37 |
| | W.Earner | - | | 2.97** |
| | Politician | - | | .29* |
| Caste | Forward | | | |

| | | | | |
|---|---|---|---|---|
| | Backward | | | |
| | Scheduled | | | |
| **Economic Factors** | | | | |
| Work Status | Not Employed | | - | |
| | Employed | | - | |
| Control on Income | No | | 1.0 | 1.0 |
| | Partial | | 3.22** | 5.80*** |
| | Full | | 2.66 | 47.96*** |
| Women Income | 0 Nil | | | |
| | I. <Rs15,000 | | | |
| | II.15,000-30,000 | | | |
| | III.>30,000 | | | |
| Women Savings | 0 Nil | 1.0 | | 1.0 |
| | I. < Rs15,000 | 3.25** | | 1.67 |
| | II. 15,000-30,000 | 3.65 | | 26.31** |
| | III.>30,000 | 3.20 | | 1.33* |
| Land Ownership | No | | | |
| | Yes | | | |
| **Social Factors** | | | | |
| Comm. Participation | No | - | | |
| | Yes | - | | |

**Notes:** OR=odds ratios; *p<0.05; **p<0.01; ***p<0.00

**Multivariate Logit Regression Analysis**

**Table 7: Final Backward Stepwise Multivariate Logistic Regression (Social Decision Matters)**

| Socio-Economic Characteristics | Categories | Personal Health | To Vote |
|---|---|---|---|
| | | **O.R** | **O.R** |
| | | - | |
| Districts | ASR | - | . |
| | HOS | - | |
| | BHA | | - |
| **Demographic Factors** | | | |
| Age | <35 yrs | 1.0 | - |
| | >35 yrs | 2.73* | - |
| Women Education | Illiterate | - | 1.0 |

| | | | |
|---|---|---|---|
| | Primary | - | .99 |
| | Middle | - | 1.95 |
| | High | - | 2.10 |
| | Secondary | - | 2.49 |
| | Col/Univ. | - | 13.13** |
| Marital Status | Married | - | - |
| | Single | | - |
| Family Type | Nuclear | | - |
| | Joint | | - |
| Marital Duration | <5 yrs | | - |
| | >5 yrs | | - |
| No. of Children | <3 | | - |
| | >3 | | |
| Husband Education | Illiterate | | |
| | Primary | | |
| | Middle | - | |
| | High | - | |
| | Secondary | - | |
| | Col/Univ | | |

| **Socio-Economic Characteristics** | **Categories** | **Personal Health** | **To Vote** |
|---|---|---|---|
| | | **O.R** | **O.R** |
| Husband Status | Farmer | - | |
| | Business | - | |
| | Service | - | |
| | W.earner | - | |
| | Politician | - | |
| Caste | Forward | | |
| | Backward | | |
| | Scheduled | | |
| | | | Economic Factors |
| Work Status | Not Employed | | |
| | Employed | | |
| Control on Income | No | 1.0 | 1.0 |
| | Partial | 5.88* | 1.74 |
| | Full | 1.038e8 | 3.88* |
| Women Income | 0 Nil | 1.0 | 1.0 |

| | | | |
|---|---|---|---|
| | I. Up to Rs15,000 | 6.50** | 1.09 |
| | II. 15,000-30,000 | - | 7.05** |
| | III. Above 30,000 | | 1.36 |
| Women Savings | 0 Nil | 1.0 | |
| | I. Up to Rs15,000 | 5.13** | |
| | II. 15,000-30,000 | | - |
| | III. Above 30,000 | | - |
| Land Ownership | No | | |
| | Yes | | |
| **Social Factors** | | | |
| Community | No | | 1.0 |
| | Yes | - | 3.16** |

**Notes:** OR=odds ratio; *p<0.05; **p<0.01; ***p<0.001

**Multivariate Logistic Regression Analysis**

In bivariate analysis, decision making power of the respondent has been analysed to understand how it operates in relation to various socio-economic variables. Each decision outcome measure worked out in bivariate analysis differed from other in its association with different set of independent variables depending upon significance of the probability level. Variables that are statistically significant (p<.05) in one decision outcome are found to be non significant in the other. In this section, the variables which are statistically significant in bivariate analysis have been used in BSTEP Multivariate Logit Regression analysis to identify those variables which affect respondent's status in the household matters. Analysis of results (Table 6-7) of final backward stepwise multivariate analysis model has been discussed as follows:

**Economic Decision Matters**

**Expenditure on Consumer Goods**

Outcome II involves decision making on expenditure on consumption goods (Table 6). In this decision outcome, age of the respondent, marital duration, number of children, women's savings and her higher education affect decision making positively and significantly whereas women in the joint families enjoyed weak autonomy in decision making. Growing age (>35 years) makes a woman 3.85 times the odds more likely to take this decision as against those of lesser age significantly at p<0.001. Family type emerged a significant (p<0.001) factor affecting decision making indicating that women in joint families are 0.053 times the odds i.e. less likely than nuclear families in participating in this decision. Woman's saving increases her likelihood of taking this decision for all categories (I,II, III) by 3.25, 3.65 and 3.20 times the odds but for the (I) category income respondents, the odds of taking decision are related significantly(p<.01) as compared to those with no savings. Women's longer duration in marriage makes her 5.70 times the odds more likely to be autonomous in decision making as compared to those with lesser duration(p<.01). More number of children makes a women 4.71 times more likely to be involved in decision making expenditure on consumer goods significantly (p<.01).Women's education emerges as a significant factor influencing decision on this outcome. Respondents with high school education are 5.96 (p<.01), secondary 4.78 and coll/univ 14.05 (p<.05) times the odds more likely to participate in this decision outcomes as compared to illiterate category.

**Expenditure on Personal Needs**

Women's autonomy in decision on personal needs (Table 6) shows a strong significant association with age, her control over household income, nuclear family type positively. As woman age, she is more likely by 4.71 times the odds to take this decision as against those with lesser age at p<001. Partial control of household income by respondent makes her more likely to take this decision by 3.22 times the odds respectively as against those with no

control significantly at p<.01. Respondents from joint families are 0.41 times the odds and less likely to assert in the decision matter as compared to nuclear households (p<.001).

**Day to Day Expenditure**

Decision on day to day expenditure (Table 6) is influenced by age of the respondent, nuclear family type, duration of her marriage, control over household income, women's savings, husband's status (wage earner) positively and significantly. Women with growing age are 5.37 times the odds more likely to take decision as compared to those with lesser age significantly at p<.001. Respondents from joint family set up are .07 times the odds less likely to take decision as compared to those from nuclear set up significantly at <.001.Partial and full control of household income by the respondents makes her 5.88 and 47.69 times the odds more likely to participate in this decision significantly at p<.001 as compared to those having no control. Respondents of saving category II and III are 26.31 (p<.01) and 1.33(p<.05) times the odds more likely to take decision respectively as compared to women with no savings . Respondents with wage earners as husbands are 2.97 times the odds more likely to take decision(p<.01) and those of politicians are less likely by 0.29 (p<.05) times the odds to make decision as compared to farmer category. Respondents with longer marriage duration are 3.91 times the odds more likely to assert in decision making as compared to shorter duration marriage significantly at p<.05.

**Social Decision Outcomes**

**Personal Health**

Decision of the respondent on her personal health (Table 7) is influenced significantly and positively by her earned or personal income and savings, her control over income and her age. Women's income (I category) make a woman more likely to participate by 6.50 times the odds as compared to women with no income significantly at p<.01. Women with savings (category 1) are 5.13 times the odds more likely to involve in decision of personal health significantly at p<.01. Partial control of household income by the respondent makes her 5.88 times the odds more likely to participate as compared to respondent with no control over income significantly at p<.05. Older women are 2.73 times the odds more likely to participate in this decision outcome significantly at p<.05.

**Whom to Vote**

Decision of whom to vote by a woman is influenced by women's highest level of education, her full control over household income, community participation, her income positively and significantly. Women with highest level of education (coll/univ) are 13.13 times more likely to participate in decision on whom to vote significantly at p<.01 as compared to those with no education. Women who are involved in community participation are 3.16 times the odds more likely to decide on whom to vote as compared to those who are not involved significantly at p<.01. Women of income category (II) are 7.05 times the odds more likely to decide significantly at p<.01 as compared to women with no income. Women with full control over household income are 3.88 times more likely to assert herself in decision of whom to vote significantly at p<.05 as compared to those with no control (Table 7).

## Discussion

Multivariate Logistic Regression Analysis was carried out to identify variables affecting women autonomy in household decision making in various economic and social decision outcomes. Analysis brought out significance of some explanatory variables in determining the status of women in taking household decisions which have been discussed below.

**Age**

Increasing age (>35 years) is one of the factors found to influence decision making in all outcomes significantly. In multivariate analysis for economic decision outcome, age is positively and significantly associated with expenditure on consumer goods (p<.001), expenditure on personal needs (p<.001), day to day expenditure (p<.001). In social matters again, age influences decision making on outcome personal health (p<.05). Age has been researched as one of the most significant variables influencing decision making. As woman gets older, she gains autonomy in household decision making (Acharya). Young woman work under the supervision of her mother- in- law and is not at her will to act. Studies undertaken by Das Gupta (1996), Malhotra and Manthar (1997), Jeejobhoy and Sathar (2001), Acharya (2010) also confirm that women gain autonomy as they age. On the other hand, Shymalie and Saini (2011) established growing age to be negative and insignificant factor in influencing women's autonomy in household decision making in Hills of India for high status women. Kishore and Subaiya (2008) found that age of

the women was the most consistent, positive and significant factor affecting women's decision making in Pakistan Punjab.

Age in the analysis is the most significant variable in many but not all decision outcomes. The areas where growing age women are least likely to participate are in whom to vote in social matters. In the sample districts, older women are more mobile, have greater access to resources in the family, likely to be economically autonomous and independent in making decisions.

**Family Type**

Analysis of multivariate analysis points to significant influence of family type (nuclear or joint) on household decision making. In bivariate analysis, it is significant factor for all economic and social outcomes. In multivariate analysis, respondents in joint families have less likelihood of taking decisions (significantly) on decision of expenditure on consumer goods ($p<0.001$), expenditure on personal needs ($p<0.001$), day to day expenditure ($p<0.001$). Women from joint family set up are less likely to be consulted in major household decisions. They are neglected in matters of personal health . Respondents of nuclear family remain independent, mobile and as a result well informed and aware; hence take part in all major and minor household decision. In sample districts of Punjab, 51% of the families are joint families and hence women in these families may have less sole control in key decisions. The presence of extended family in the household holds them back in all aspects of their lives. These living arrangements lie at the heart of our gender and social systems which have adverse impact on women's autonomy. (Sathar and Kazi,2000) . Analysis of the present study is in conformity with the studies conducted by Jeejobhoy and Sathar (2001), Shyamalie and Saini (2011), Randhawa (2002) and Ghuman (2005) who found significant influence of joint family type on lesser household decision making of women.

**Control over Income**

All economic and social outcome decisions in bivariate analysis point to significant influence of partial and full control of income by woman on her autonomy in decision making. In multivariate analysis, women who have sole control over income emerged a significant factor for their autonomy in decisions of expenditure on personal needs ($p<0.001$), day to day expenditure ($p<0.001$). In Social matters, respondents partial or full control over household income is a significant factor in making decision on personal health ($p<0.05$) and in decision of whom to vote($p<.05$). Women who have control over household's cash and resources are empowered to pay for their health care and personal needs. Analysis has been in conformity with the findings of Jeejobhoy and Sathar (2001), Sathar and Kazi (2000) who identified and examined access to resources as an influential and significant factor for women's autonomy in the state of Punjab and Uttar Pradesh.

**Number of Children**

It was hypothesized that women with more number of children are more likely to take part in decision making. Bivariate analysis points to positive effect of more number of children (>3) on expenditure on consumer goods, day to day expenditure, expenditure on personals needs but in multivariate analysis results it has been significant to influence women's decision making in expenditure on consumer goods($p<.01$). Both social outcomes in multivariate analysis show women with more number of children unlikely to significantly affect decision making. Acharya (2010) confirms significant influence of more number of children on women's autonomy in decision making on all decision outcomes in his study in Nepal.

**Work Status**

It was hypothesized that women's ability to make household decision is enhanced while they are working or are being employed. In sampled districts of Punjab, only 4.81 % of farm and 46.9% of landless category sampled respondents are employed. Landless category respondents work as agricultural labour, factory workers, aaganwadi workers and maid servants whereas farm respondents work as sarpanch, government officials in schools and private school teachers. The relationship between employment and women's autonomy in decision making in bivariate analysis is positive and significant for decision on expenditure on consumer goods, day to day expenditure, personal health and whom to vote.

In multivariate analysis, work status of respondent does not establish positive and significant relationship in any outcome. Valdez (1997), Ramu (1997) Malhotra and Manthar (1997) and Metei (2004),Acharya(2010) concluded in their studies that employment was positively and significantly related to women's autonomy in household decision making. Economically sound families in the sample have varied life styles that confine women to the domestic sphere and withdraw women from the economic activities outside home. Moreover, these women in Punjab have

very few opportunities of work outside home and are confined to household work only. Most of the employed landless respondents who are less than 35 years of age are not in a position to take decisions at home despite earning their own livelihood. As a result significant relationship couldnot be ascertained

**Marital Status**

Given the history of patriarchy in Punjab, most married women report that men dominate household decision making. Marital status remain an important predictor of decision making because single women do not have to negotiate with a spouse for control over decisions, hence they were hypothesized to have more autonomy than married women.

In bivariate analysis decision on day to day expenditure is positively and significantly influenced by marital status.

In multivariate analysis, marital status has been found to be associated non- significantly with any of the economic and social decision matter. Hindin (2002) in his study confirmed that marital status influences decision making significantly in Zimbabwe. Older, single, divorced and widowed women are more autonomous in decision making. Shyamalie and Saini (2011) found marital status to be significant factor determining women's status in low status category in Sri Lanka and Kangra and not in high status category women.

**Marital Duration**

More number of years in marriage was hypothesized to increase women's autonomy in decision making. Bivariate analysis points to significant influence of marital duration on decision outcomes on all economic and social matters.

Multivariate analysis points to significant and positive influence of marital duration on respondent's decision making on outcomes of expenditure on consumer goods ($p<.01$) and in day to day expenditure ($p<.05$). Social outcome of decision on personal health and whom to vote` are not influenced significantly by more number of years in marriage. Acharya (2008) in his analysis on Nepal women suggested marital duration to be positively and significantly associated with probability of respondents having say in decision matters whereas Shyamalie and Saini (2011) found the variable insignificant in his study on women in Hills of India. Jejeebhoy and Sathar (2001) found marital duration as one of the factors affecting women's autonomy in Uttar Pradesh and Punjab. Hindin (2002) also confirmed that women with longer marital duration are more autonomous in making decision over major purchases.

**Educational Qualification**

It was hypothesized that higher education helps in attaining women's autonomy in household decision making. It is a measure used most widely as a measure of their relative status and autonomy (Jeejeebhoy, 1995). Education can make a woman aware of her rights and duties and increase her confidence level. A woman who has graduation or a post graduation degree may have greater autonomy in household decision making than her counterparts who may have lesser levels of education. Hence, a significant and positive association between woman's educational level and probability of some say in household decisions is expected. In our sample study, bivariate analysis points to positive and significant association of decision to purchase consumer goods and whom to vote with women's education.

Multivariate analysis points to positive and significant influence of higher level of education (not of primary or secondary education) on decision making for expenditure on consumer goods ($p<.05$) and whom to vote ($p<.01$). Women with university/ college level education are found to be significantly likely to have increased autonomy as compared to other categories for these decisions. Women with higher educational level are unlikely to significantly influence decision making for social outcomes of personal health. In line with our results of Punjab, Acharya (2008),found primary and secondary education insignificant in affecting decision making but probability of women's decision making increased with higher level of education in two of the four decisions studied where as Malhotra and Manther (1997), Shyamalie and Saini (2011) observed positive relationship between women autonomy and woman's education. Sharmistha and Grabowski (2013) found insignificant impact of education on women's autonomy in North India. Jeejobhoy and Sathar ((2001) found that education was a major predictor of women's autonomy in Tamil Nadu where as in Punjab and UP, secondary education influenced decision making more than other level of education. Sathar *et al*. (1988) confirms that in Pakistan Punjab, education effect was stronger in urban areas. He found no significant association of education with economic autonomy in decision making inside or outside the house.

In the present study, only 74.33% of farm and 44.25% of landless women are literate and just 7.57% are in higher educational category. Perhaps because of low attainment level of education, it has not emerged strong indicator of women's status in the analysis. Also, women's education is not a widespread phenomenon in rural Punjab. The

reason may be that education is not associated with greater opportunities for employment in the rural areas. Highest level of education can help women in improving her awareness and information of the outside world and hence may have been in position to improve her autonomy and hence status in household decision making.

**Husband's Qualification**

It was hypothesized that higher level of education of husband was likely to increase women autonomy in decision making. For economic and social outcomes studied, the effect of the variable has been found not to influence women's autonomy significantly. Acharya (2008) in his study for Nepal found that primary and secondary education levels of spouse do not help women increase the chances of their decision in household status. Sathar and Kazi (2000) in his study of Pakistan Punjab also concluded that husband's education is not significant in influencing women's autonomy and found coefficients for many outcomes negative rather than positive. In our analysis also, the variable does not show positive impact on women's autonomy.

Thus, education levels of spouses do not help women increase the chances of their decision in household matters. The curriculum in our schools and colleges is deficient in not sensitizing the students in gender equality.

**Women's Income**

It was hypothesized that women's income is expected to increase her status in decision making. In bivariate analysis, women's income significantly influences decision making for few economic and social matters. Multivariate analysis assessed that category I respondents not assertive in deciding economic matters. In social matters, category 1 respondents are more likely to influence decisions in personal health ($p<.05$). Category II respondents are more likely to be affected in decision of whom to vote at $p<.01$. Category I respondents being from lower income group consisted of mostly wage earners(self employed) and hence have been found to be more assertive than higher income category III.

**Women's Savings**

It was hypothesized that women's savings may increase autonomy in decision making. Results of multivariate analysis reveal that women from saving categories I (Up to Rs 15,000), II (Rs 15,000 – 30,000) & III (Above Rs 30,000) participate in decision outcomes. Women of category I tend to influence decision making favourably in matters of decision on purchases of consumer goods and personal health at $p<.01$.Category (II and III)respondents are more likely to have a say in matters of day to day expenditure. Women who have savings at their disposal are more independent in own personal health.

**Community Participation**

In bivariate analysis, women's involvement in community organization has been found to influence her decision making in matters of day to day expenditure and in whom to vote. Multivariate analysis establishes that women's involvement in community organizations has a positive and significant impact only on decision of whom to vote ($p<.01$). Women who join organizations become more independent and aware and well informed about latest techniques. In Punjab only 9.63% of farm and 15.04% of the landless category respondents have been observed to be involved in community organization. As the analysis reveals rural women's participation in decision of whom to vote is very poor, we can look for these organizations to inculcate political empowerment in women.

**Husband's Status**

Husband's status as a wage earner has been found to promote decision making of his spouse in day to day expenditure significantly ($p<.01$).Husband in politics affect decision making of the respondents negatively i.e. they are less likely to assert in matters of day to day expenditure($p<.05$).

**Landownership**

Landownership is hypothesized to improve socio-economic status of a woman. Women are likely to exercise a greater degree of autonomy in those regions where they enjoy some rights to land (Dyson and Moore, 1983). In bivariate analysis, landownership is a factor noted to be associated significantly with decision of whom to vote. Multivariate analysis confirms this association in these outcomes but not significantly. Our analysis (Profile of socio-economic status) indicates that only 7% of respondents are owners of land titles in sample districts of Punjab. In this state, women do have the rights to inheritance legally but not socially. Women waive off their rights of inheritance to their brothers (may be under societal and family pressure) to claim on emotional support of their

brothers if at all need arises in times of distress. The necessity of such an exchange reflects women's subordinate status within the community.

**Caste**

Caste is a social category where a society is divided into higher and lower category. Life style and behavior pattern differ from caste to caste. In our analysis, three categories of caste are considered forward, backward and scheduled castes. In bivariate analysis, caste is a factor influencing decision on day to day expenditure significantly. But in multivariate analysis, caste could not find any significant association with any decision outcome.

**Districts/Regional Analysis**

The odd ratios for the district (place of the residence) are not statistically significant in economic and social matters. This indicates that different districts have no varied effect in setting norms regarding economic and social opportunities for women.

To conclude it can be inferred from the results of the logit analysis that age of the respondent, family structure, hercontrol over household income, her personal or earned income and savings appear to influence almost all the aspects of women's autonomy in household decision making. Growing age, nuclear family and full or partial control over income by the respondents contribute positively and very significantly to her status. Respondent's income, savings, highest level of education (Coll/Univ) and her work status also affect decision outcomes and are explanatory factors partially contributing to her status.

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