



Share of Women in Total Family Income – A Two Group Discriminant Analysis

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ABSTRACT

There is a marked shift as a result of globalization not only in political and economic power, but also in traditional culture, identity and role of women. In Indian society, traditionally, women as independent entities has been non-existent and the life of a woman is deeply embedded in the household and the family. She was considered to be only bread maker and not breadwinner. Because of poverty and unemployment women folk are compelled to seek jobs and in the absence of male earner due to death, desertion or divorce, the responsibility to run the household is falling increasingly in large proportion on women. Women have to now cater to the responsibility of the households on their own. More than half of the rural women and over one fourth of the urban women are engaged in marginal occupations to supplement the family income by arduous work over long hours. Comparable data for the census over the eighties and that from NSS over the last two decades somewhat lends support to the claim that urban work force is getting feminized over the years. The growth of population and growth of economy during the last two decades seem to have contributed to the rise of work participation rate during the decade 1981-91 from 19.67 per cent to 22.73 per cent. The percentage increase in the number of female workers during this period was 42.26 in all areas, 40.25 in the rural areas and 60.99 in the urban areas.

Keywords : breadwinner, desertion, Slum households, arduous.

Introduction:

In India, women are engaged in type of work that create insecurity of income and employment and expose women to many forms of abuse. In the past, these jobs ranged from temporary, casual, part time to home based wage work. Poor women, when they go out to the work market, branded by the superimposition of their plight of poverty and their gender, are faced with very limited working options, which confine them to low wage and part time jobs, generally in the informal sector. In India, the organized sector is not very large and the social security programmes cover only a very limited number of working people. How and in what manner the unorganized sector and the women labour force in it will get adjusted to the changing process with or without the governmental or the other kinds of assistance is a matter of concern.

The following table gives the occupation wise distribution of the selected respondents.

Table – 1 : Occupation Distribution of Women in Slum Households

S.No	Occupation	Number	S.No	Occupation	Number
1.	Petty shopkeepers	20	8	Diamond Polishing	3
2.	Mat weavers	20	9	Constructions Workers	3
3.	Vegetable vendors	17	10	Receptionists	2
4.	Maid Servants	13	11	Typist	2
5.	Tailoring	7	12	Coolie	1
6.	Shop Assistants	7	13	Sales girls	1
7.	Press	3	14	Tea Stall	1
	Total	87		Total	13

From the above table it can be seen that women in slum area were mostly employed in low paid jobs such as maid servant, coolie, construction works and so on. In this context it is worthwhile to quote the Report of Committee on the Status of Women in India (1984).

"Domestic service of cooking, cleaning, sweeping, washing and looking after children is a major avenue for wage employment of women particularly in the urban areas.... service is

insecure and the possibility of exploitation is high There are no limits to their hours of work their basic needs are hardly met by their meager incomes."

The income wise distribution of the respondents is given in Table-2.

Table – 2: Income Distribution

S.No	Monthly Income (Rs)	Number of Respondents
1.	0-500	15
2.	500 – 1000	44
3.	1000 – 1500	28
4.	1500 – 2000	13
	Total	100

The table shows how women in slum area engaged in unorganized sector get meager income. The monthly income of all the respondents was less than Rs.2000, which brought out the immediate necessity of providing the technical assistance and skill upgradation to the womenfolk there by opening up new avenues of employment which could give them better pay. The average monthly income of the respondents was calculated to be Rs.1007.50.

SHARE IN FAMILY INCOME: DISCRIMINANT ANALYSIS

An analysis was carried out in this section to find out whether the selected women respondents could be discriminated into two groups based on their share in family income. The average share of the women to the family income was calculated to be 41.41 per cent. Sixty - three women have contributed less than the average share and 37 greater than the average share. These women were classified into two groups viz., group -I and group-II. To find out whether this discrimination was due to social or economic factors and if so to find out the relative contribution of some selected factors in discriminating the two groups, discriminant analysis was applied. Eight socio - economic factors - viz., 1. number of hours worked (X_1), 2. income of the respondents (X_2), 3. total family income (X_3), 4. dependents in the family (X_4), 5. size of the family (X_5), 6. marital status (X_6), 7. type of family (X_7) and 8. total family expenditure (X_8) were considered. For marital status and type of family dummy concept was used.

The values assigned for these two variables were as follows.

Category Marital Status	Value assigned
Unmarried	0
Married	1
Divorce and widow	2
Type of Family	
Joint family	1
Nuclear	2

The means and standard deviations of the eight variables are given in Table-3

Table – 3 : Means and Standard Deviation

Sl. No.	Variables	Group – I		Group - II		Wilk's
		Mean	Standard deviation	Mean	Standard deviation	
1.	No. of hours worked (X ₁)	7.74	20.02	8.71	2.06	0.9487
2.	Income earned X ₂	900.79	312.83	1566.22	785.90	0.7279
3.	Family income (X ₃)	3471.43	1163.34	2505.41	1055.66	0.4479
4.	No. of dependents (X ₄)	0.89	1.06	1.38	1.28	0.4449
5.	Size of the family (X ₅)	4.59	1.33	4.0	1.25	0.4448
6.	Marital status (X ₆)	0.84	0.57	1.30	0.69	0.4445
7.	Type of family (X ₇)	1.63	0.49	1.86	0.35	0.4425
8.	Family expenditure (X ₈)	2594.70	885.77	1904.46	757.28	0.4386

As can be seen from the table the women who contributed less than the average share had higher family income and higher family expenditure and large size of the family than the group-II women who contributed greater than the average share. It leads to the logical conclusion that with increase in the size of the family the number of earning members in the family increases leading to increased family income and hence women contribute less. Another notable feature in group-1 was the lesser number of dependent and the lesser number of working hours of the respondents. These factors also explain the lower contribution of women to their family income. The marital status of women in group-I was also less than that of group-II implying the large number of unmarried women in group-I. The unmarried women do not contribute significant portion of their income to their family as married, widows or divorcees do. With the changing life style the womenfolk keep a substantial part of income for their own expenses.

To test the statistical significance of the discriminant function in its ability of the variables to discriminate among the groups, Wilks' lambda was used. Wilks' lambda is a multi-variant measure of group differences over discriminating variables. Values of lambda near zero indicate high discrimination and when it equals its maximum value of one, the group centroids are equal and there is no discrimination. From the calculated values of Wilks' lambda given in Table-3, it can be inferred that in the case of working hours of the selected respondents there was no discrimination, the significance level being 0.02 per cent. The other variables were statistically significant in discriminating the two groups.

The relative discriminating power of the variables was calculated as

$$I_j = K_j(X_{j1} - X_{j2})$$

Where,

I_j = the important value of the jth variable

K_j = unstandardised discriminant co-efficient for the jth variable

X_{jk} = mean of the jth variable for the kth group.

The relative importance weights may be interpreted as the portion of the discriminant scope separation between the groups that is attributable to the jth variable. Since a relative important value shows the value of a particular variable in relation to the sum of the important values of all variables, the relative importance of a variable (R₁) is given by

$$R_j = \frac{I_j}{\sum_{j=1}^n I_j}$$

The end result using this procedure is discussed in the following section. The unstandardised canonical discriminant function was

$$Z = 0.4049 + 0.0048X_1 + 0.0020X_2 - 0.007 X_3 + 0.1022X_4 + 0.0917X_5 + 0.0313X_6 + 0.2672X_7 - 0.0003X_8$$

The group – 1 women were characterized by higher working hours, income, number of dependents, size of the family, marital status and type of family and were characterized by low family income and low family expenditure. The relative importance of each of the factors in discriminating the two groups was worked out and are given in Table-4.

Table – 4: Relative Discriminating Power

S. No	Variables	I _j	R _j
1)	No. of hours worked (X ₁)	0.0046	0.19
2)	Income earned (X ₂)	1.3463	55.46
3)	Family income (X ₃)	0.7047	29.03
4)	No. of dependents (X ₄)	0.0500	2.06
5)	Size of the family (X ₅)	0.0539	2.22
6)	Marital Status (X ₆)	0.0058	0.24
7)	Type of family (X ₇)	0.0614	0.53
8)	Family expenditure (X ₈)	0.2009	8.28
	Total	2.4276	100.00

It was income that the respondents earn, which discriminated the two groups, with the highest discriminating power of 55.46 per cent. With increased income, the women were able to contribute more to their families. Next to it, 'family income' had the second highest discriminating factor, with a scope of 29.03 per cent followed by family expenditure with a scope of 8.28 per cent. All though eight factors were included in the discriminant function, only these three factors together contributed about 93 per cent of the total discrimination.

It has to be noted that income of the respondents which was the 6th important variable based on unstandardised discriminant coefficient, was the first most important variable on the basis of contribution to the family. Similarly type of family which stood first as the most important variable on the basis of unstandardised discriminant co-efficient took the fourth place on the basis of relative importance in discrimination. Such results were seen in the case of other variables also. To find out whether the classifications of the groups were correct or not, canonical proportion criteria was used. The classification results was given in Table-5.

Table - 5

Actual Group	Number of cases	Predicted group	Membership
Group - I	63	63	0
		100%	0%
Group – II	37	6	31
		16.2%	83.8%

About 94 per cent of the group cases were correctly classified and classification was not due to chance.

CONCLUSION:

The findings bring out the poor income that the women in the slum area get and the fact that women in the unorganized sector are placed in low paid jobs. Women who form 50 per cent of the world's population are still 'a deprived sex.' As the study shows with increased income, the contribution of women to their families will also increased. Women who do

household work for which they are not being paid, also work outside for money to supplement their family income. in this context, it is worthwhile to mention that 'labour is the source of all wealth and as long as this resource which is available in abundance in our country remains neglected neither sustained nor equitable growth of the economy is possible.'

REFERENCES

- Sandhu, H.K. (1987): Technological Development versus Economic Contribution of Women in Rural Punjab, *Social Change*, Vol. 6. No. 3 and 4 ~ Singh, K.P. (1988): Women and Development, National Seminar. The Emerging Perspective of India's Development Experience, Chandigarh, March 10-12-1988. ~ Jyothi Panjabi and A.N. Sandhu (1988) : New Agricultural Strategy and Rural Women, *Journal of Rural Development*, Vol. 7 No.4 ~ 2Jain, D. (1985): Women's Economic Roles and Women's Employment – The Linkages and Policy Implications. Paper presented at the International Seminar on Women and Development, Jaipur, 1985. ISST. ~ Kaur, Malkiat. (1998) : Rural Women and Technological Advancement, Discovery Publishing House, New Delhi. ~ 'Report of the Committee on the Status of Women in India (1974) Towards Equality,' Ministry of Welfare, Government of India.