



A Correlation Analysis of Socio-Economic Status of Women in Ahmadnagar District (Maharashtra)

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Abstract:

Although, geographically, men and women share the same space, yet they are not treated equally in the world. Presently there exists inequality in women's access to education, health care, physical and financial resources and opportunities in the political, economic, social and cultural field. Everywhere in the world, women are accorded a lower status than men (Das, 2013). The term 'status' is used here to indicate women's position in the society.

In the present paper an attempt has been made to analyse the socio-economic status of women in comparison with their men counterparts and their correlation analysis between socio-economic variables in Ahmadnagar district during 2011. Present study reveals that socio-economic status of women was lower in all the tahsils of the study region compared to the status of men, but women's status increases with the augmentation of men's status. Correlation analysis reveals that, mostly those tahsil having higher level status of men is also having the higher level status of women and vice versa.

Keywords: Socio-Economic, Status, Inequality, Region, Society.

Introduction

Women's status is a multidimensional concept referring to women's access to and control over valued material and social resources, and/or women's power and autonomy, i.e. women's ability to control important events in their lives or their freedom from control by others within the household as well as without (Cain et al., 1979; Safilios-Rotschild, 1985). The status of women is unequal as compared to male and varies from caste to caste, religion to religion and region to region. The term 'status' is used here to indicate women's position in the society. It involves roles, expectations, entitlements, rights and obligations. The general well-being or position of women in the society is defined as the status of women (Ramotra, 1997).

In the present paper an attempt has been made to assess the socio-economic status of women with their men counterparts and their correlation analysis between socio-economic variables in Ahmadnagar district during 2011. The study reveals that, mostly those tahsil having higher level status of men is also having the higher level status of women.

Study region

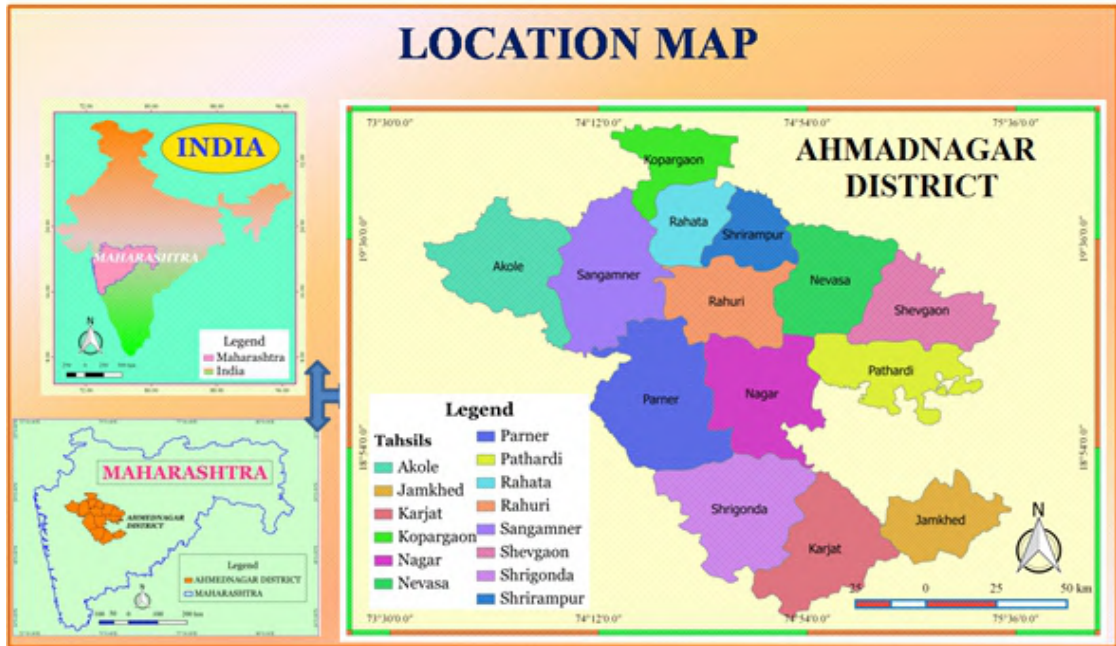
Ahmednagar district is situated partly in the upper Godavari basin and partly in the Bhima basin occupying a somewhat central position in the Maharashtra state. It lies between 180 2' and 190 9' north latitude and 730 9' and 750 5' east longitude. Topographically the district can be divided into three parts. i.e. the Sahyadri ranges, plateau region and Bhima, Godavari basins (Fig 1).

Objectives:

To assess the socio-economic status of women in comparison with their men counterparts and their correlation analysis between socio-economic variables in Ahmadnagar district during 2011.

Hypothesis:

It is assumed that higher the socio-economic status of women where higher is the men's status in the study area.



(Fig. 1)

Data sources & Methodology

The present study is entirely based on secondary data. The data for the different socio-economic indicators were obtained from the Primary Census Abstract of Ahmadnagar District, 2011. Variables viz. general sex ratio, child sex ratio, literacy rate, work participation rate, workers in non-agricultural sector, and proportion of urban population has been calculated by employing various formulas as per 2011 Census.

Composite index for measuring the status of women and men have been computed by using Kundu's method of normalization (Kundu, 1980). As far as determinations of weightage is concerned, equal weightage has been assigned to all the selected variables to compute the status of women and men (Ramotra & et al., 2016). The transformed values of each indicator are added up linearly and lastly the scored values of composite index put into descending order and classified into 5 different categories like very high, high, moderate, low and very low level status of men and women for the purpose of mapping and comparative study. The Karl Pearson Product-Moment Correlation Coefficient (r) method used for correlation analysis and it is measured by using the following formula.

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\sum x^2 - \frac{(\sum x)^2}{n}} \sqrt{\sum y^2 - \frac{(\sum y)^2}{n}}}$$

Where,

- r is the coefficient of correlation between y (dependent) and x (independent) variables,
- n is the number of observations.

Socio-economic status of women and men, 2011

The composite index of status of women and men is constructed at tahsil level (Table 1 and Fig. 2) shows that, the status of women index is lowest in Shevgaon (3.94) and highest in Nagar tahsil (9.16), whereas status of men index is lowest in Parner (5.32) and highest in the Nagar tahsil (11.41).

In 2011, very high level (Above 7.00) of women's status was observed in Nagar (9.16) tahsil only, while very high level of men's status found in the Nagar (11.41), Shrirampur (8.34), Rahata (7.61), Kopargaon (7.38) and Rahuri (7.20) tahsil. High magnitude of status of men and women was mostly confined around agriculturally, industrially developed and mostly urbanized tahsils. There was also progress in educational, health and infrastructural facilities. High status (6.00-7.00) of women was observed in Shrirampur tahsil (6.56), whereas high level of status of men was observed in 4 tahsil viz. Sangamner (6.98), Jamkhed (6.84) Pathardi (6.02) and Shrigonda (6.00). Shrirampur tahsil consistently obtained higher level status of women and occupies second rank after Nagar tahsil, due to high urbanization, industrialization.

Moderate level status (5.00-6.00) of women was noticed in 5 tahsils, like Rahata (5.71), Kopargaon (5.57), Rahuri (5.49), Sangamner (5.41), and Jamkhed (5.30), while moderate level status of men was found in four 4 tahsils viz. Karjat (5.58), Nevasa (5.50), Akole (5.34), Shevgaon (5.36) and Parner (5.32). Low Level Status (4.00-5.00) Low socio-economic status (4.00-5.00) of women was identified in six 6 tahsils, like Shrigonda (4.63), Pathardi (4.61), Akole (4.34), Karjat (4.20), Nevasa (4.09) and Parner (4.09). Status of men is much higher than women; hence, not a single tahsil falls in this category with respect to men.

Only Shevgaon (3.94) tahsil was identified with very low level status (Below 4.00) of women, while not a single tahsil was found in this category of very low level status of men in 2011. It clearly indicates that, status of women is much lagging behind as compared to men's status.

**Table 1
Socio-Economic Status of Women and Men in Ahmadnagar District, 2011**

| Socio-Economic Status of Women | | | | | | | | |
|---------------------------------------|---------------|----------|----------|----------|----------|----------|----------|-------------|
| Sr. No. | Tahsil | 1 | 2 | 3 | 4 | 5 | 6 | *WCI |
| 1 | Akole | 0.97 | 0.88 | 0.84 | 1.03 | 0.43 | 0.21 | 4.36 |
| 2 | Sangamner | 0.94 | 0.84 | 0.93 | 0.87 | 0.7 | 1.13 | 5.41 |
| 3 | Kopargaon | 0.94 | 0.88 | 0.92 | 0.73 | 0.75 | 1.37 | 5.59 |
| 4 | Rahata | 0.94 | 0.83 | 0.97 | 0.66 | 1.18 | 1.14 | 5.72 |
| 5 | Shrirampur | 0.96 | 0.85 | 0.96 | 0.63 | 1.26 | 1.98 | 6.64 |
| 6 | Nevasa | 0.93 | 0.84 | 0.9 | 0.9 | 0.54 | 0 | 4.11 |
| 7 | Shevgaon | 0.95 | 0.83 | 0.82 | 0.95 | 0.41 | 0 | 3.96 |
| 8 | Pathardi | 0.92 | 0.82 | 0.82 | 1.02 | 0.39 | 0.66 | 4.64 |
| 9 | Nagar | 0.93 | 0.85 | 1.04 | 0.56 | 1.86 | 3.93 | 9.17 |
| 10 | Rahuri | 0.93 | 0.83 | 0.92 | 0.77 | 0.72 | 1.35 | 5.52 |
| 11 | Parner | 0.95 | 0.83 | 0.86 | 1.07 | 0.4 | 0 | 4.11 |
| 12 | Shrigonda | 0.92 | 0.82 | 0.87 | 1.03 | 0.39 | 0.62 | 4.66 |
| 13 | Karjat | 0.91 | 0.81 | 0.84 | 1.01 | 0.34 | 0.31 | 4.23 |
| 14 | Jamkhed | 0.92 | 0.81 | 0.8 | 0.93 | 0.5 | 1.37 | 5.33 |
| Weight | | 1 | 1 | 1 | 1 | 1 | 1 | 6 |

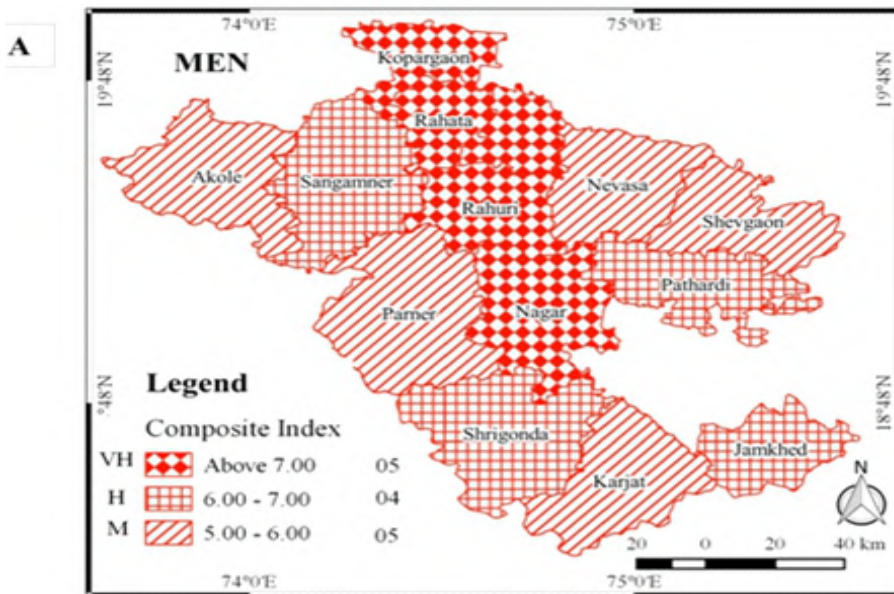
| Socio-Economic Status of Men | | | | | | | | |
|------------------------------|------------|----------|----------|----------|----------|----------|----------|----------|
| Sr. No. | Tahsil | 1 | 2 | 3 | 4 | 5 | 6 | *MCI |
| 1 | Akole | 1.02 | 1.1 | 1.08 | 1.12 | 0.78 | 0.22 | 5.33 |
| 2 | Sangamner | 1.06 | 1.15 | 1.13 | 1.11 | 1.37 | 1.12 | 6.94 |
| 3 | Kopargaon | 1.06 | 1.11 | 1.13 | 1.11 | 1.59 | 1.34 | 7.34 |
| 4 | Rahata | 1.06 | 1.17 | 1.14 | 1.13 | 1.89 | 1.15 | 7.53 |
| 5 | Shrirampur | 1.04 | 1.14 | 1.15 | 1.12 | 1.97 | 1.92 | 8.33 |
| 6 | Nevasa | 1.07 | 1.16 | 1.11 | 1.14 | 1.01 | 0 | 5.5 |
| 7 | Shevgaon | 1.05 | 1.17 | 1.08 | 1.12 | 0.91 | 0 | 5.33 |
| 8 | Pathardi | 1.08 | 1.19 | 1.09 | 1.09 | 0.9 | 0.67 | 6.02 |
| 9 | Nagar | 1.07 | 1.14 | 1.18 | 1.11 | 2.89 | 3.92 | 11.31 |
| 10 | Rahuri | 1.07 | 1.18 | 1.12 | 1.14 | 1.31 | 1.36 | 7.17 |
| 11 | Parner | 1.05 | 1.17 | 1.08 | 1.16 | 0.86 | 0 | 5.31 |
| 12 | Shrigonda | 1.08 | 1.18 | 1.08 | 1.18 | 0.87 | 0.61 | 6 |
| 13 | Karjat | 1.09 | 1.2 | 1.06 | 1.17 | 0.76 | 0.31 | 5.59 |
| 14 | Jamkhed | 1.08 | 1.2 | 1.06 | 1.14 | 1.02 | 1.32 | 6.83 |
| Weight | | 1 | 1 | 1 | 1 | 1 | 1 | 6 |

Source: Based on Primary Census Abstract of Ahmadnagar District 2011.

*WCI- Women Composite Index *MCI- Men Composite Index

AHMADNAGAR DISTRICT

SOCIO-ECONOMIC STATUS OF MEN AND WOMEN, 2011



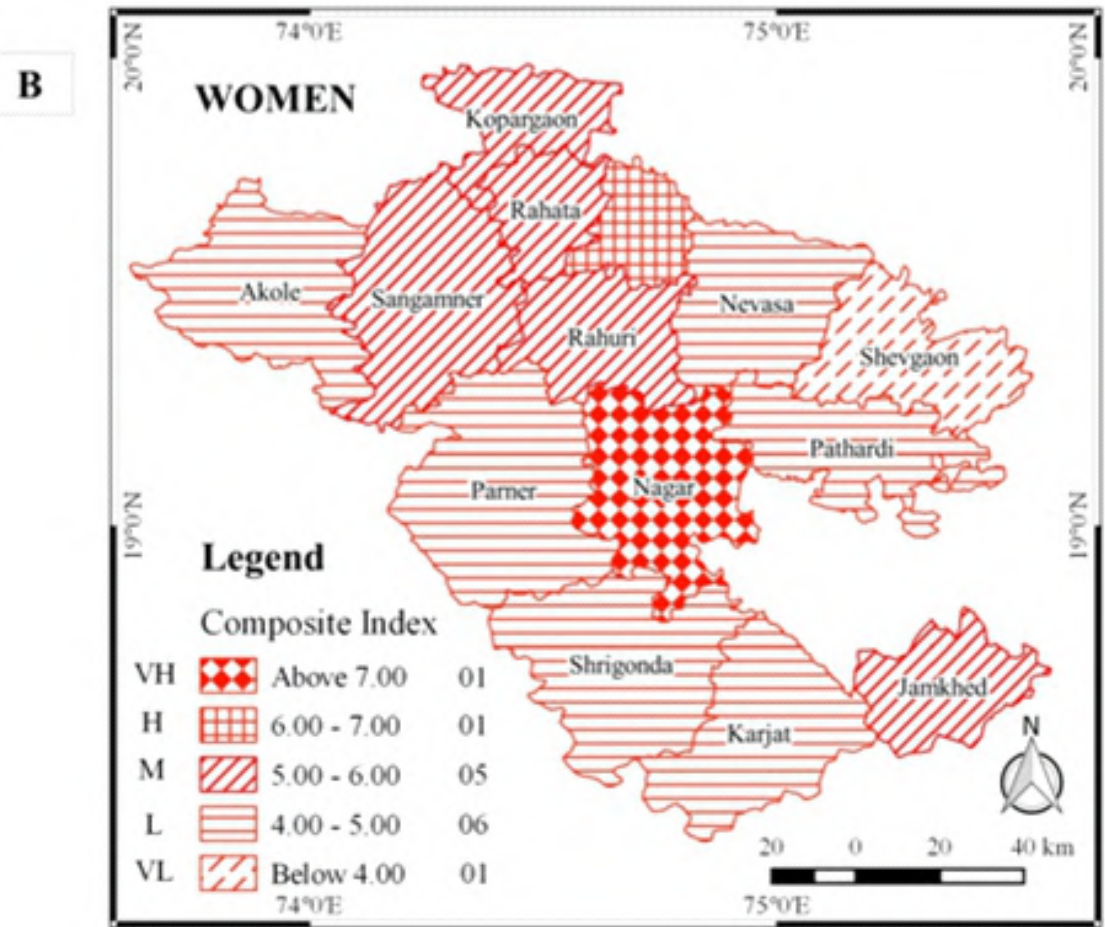


Fig. 2

Correlation Analysis

The present correlation matrix (Table 2 & 3) shows correlation of different indices with overall status of women and men in 2011.

Table 2 Correlation Matrix, Pearson @: Women's Status

| Variable | X1 | X2 | X3 | X4 | X5 | X6 | X7 |
|----------|--------|--------|--------|--------|-------|-------|-------|
| X1 | 1.000 | | | | | | |
| X2 | 0.694 | 1.000 | | | | | |
| X3 | 0.146 | 0.376 | 1.000 | | | | |
| X4 | -0.136 | -0.345 | -0.878 | 1.000 | | | |
| X5 | 0.149 | 0.307 | 0.910 | -0.922 | 1.000 | | |
| X6 | -0.082 | 0.205 | 0.754 | -0.815 | 0.897 | 1.000 | |
| X7 | -0.003 | 0.255 | 0.817 | -0.845 | 0.149 | 0.991 | 1.000 |

Source: Based on Primary Census Abstract of Ahmadnagar District, 2011.

Note: X1- General Sex Ratio X2- Child Sex Ratio X3- Literacy Rate
 X4-Work Participation Rate X5- Workers in Non-Agricultural Sector
 X6- Urban Population X7- Composite Index, Women

Table 3 Correlation Matrix, Pearson ®: Men's Status

| Variables | X1 | X2 | X3 | X4 | X5 | X6 | X7 |
|-----------|--------|--------|--------|--------|-------|-------|-------|
| X1 | 1.000 | | | | | | |
| X2 | 0.750 | 1.000 | | | | | |
| X3 | -0.178 | -0.473 | 1.000 | | | | |
| X4 | 0.317 | 0.453 | -0.495 | 1.000 | | | |
| X5 | -0.064 | -0.349 | 0.922 | -0.410 | 1.000 | | |
| X6 | 0.108 | -0.222 | 0.770 | -0.367 | 0.917 | 1.000 | |
| X7 | 0.072 | -0.249 | 0.839 | -0.371 | 0.965 | 0.989 | 1.000 |

Source: Based on Primary Census Abstract of Ahmadnagar District, 2011.

Note: X1- General Sex Ratio X2- Child Sex Ratio X3- Literacy Rate
 X4-Work Participation Rate X5- Workers in Non-Agricultural Sector
 X6- Urban Population X7- Composite Index, Men

2.1 Correlation between Socio-Economic Variables and Status of Women

The present correlation matrix (Table 2) shows correlation of different indices with overall status of women in 2011. There is found significant negative correlation between status of women and female work participation rate ($r = -0.845$) to total females in the study area. It is because of mostly female workers who are engaged in agricultural and allied activities. Therefore, it is inversely affecting on their socio-economic status.

Composite index of women's status shows low positive correlation with both, child sex ratio (0-6) and female workers in non-agricultural sector. Though both these factors are not significant, but it shows that increase in these factors, ultimately raise in their socio-economic status. Hence, there is need to improve their child sex ratio and participation in non-agricultural activities in future.

Proportion of females residing in urban areas and improvement in their literacy rate highly contributed for betterment of their status. There is found very strong and positive correlation in between socio-economic status of women to their urban proportion ($r = 0.991$) and literacy rate ($r = 0.817$) and both are significant at 1 per cent level. Hence these two factors are playing a vital role in improvement of their status.

Therefore, it is concluded that higher is the level of urbanization, higher is the level of literacy and ultimately higher is the status of women.

2.2 Correlation between Socio-Economic Variables and Status of Men

The present correlation matrix (Pearson ®) also shows correlation of different indices with overall status of men during 2011, which is represented in Table 3.

There is found very high and positive correlation in between socio-economic status of men with their urban proportion ($r = 0.989$), literacy rate ($r = 0.839$) and workers engaged in non-agricultural sector ($r = 0.965$).

It is observed that all these factors associated with their status and all are significant at 1 per cent level of significance. Hence these three factors are playing a vital role for the development of

men's status. But, in contrast there is found significant negative correlation between status of men comparing with their child sex ratio and total work participation rate and not significant with general sex ratio.

Therefore, it is also strongly concluded that higher is the urban proportion of male, higher is their level of literacy rate, leads to higher the proportion of male workers in non-agricultural sector and correspondingly higher is their overall status in the study area. It is also, noticed that the significant correlation in between status of men and proportion of workers engaged in non-agricultural sector, but not in case of women's status because of their low share in this sector so, there is need to improve female work participation in non-agriculture sector.

2.3 Correlation between Status of Men and Women

It is obviously seen that, mostly those tahsil having higher level status of men is also having the higher level status of women and vice versa.

It is found that coefficient of correlation between the men's and women's composite index is positive ($r = 0.989$) and significant at 1 per cent level during 1991. Again in 2001, coefficient of correlation between the men's and women's composite index is positive ($r = 0.992$) and significant at 1 per cent level and further coefficient of correlation between the men's and women's composite index is positive ($r = 0.996$) and significant at 1 per cent level during 2011. Therefore it is strongly proves that, Female status was high where male status was high (Lee and Schultz, 1982).

3.0 Conclusion

Present study clearly indicates that, socio-economic status of women was lower in all the tahsils of the study region compared to the status of men, but women's status increases with the augmentation of men's status that means both women and men's socio-economic status raises hand in hand. Female status was high where male status was high. It is found that coefficient of correlation between the men's and women's composite index is positive in 2011 ($r = 0.996$) and significant at 1 per cent level. There is a north-south divide observed in terms of status of women and men, especially, northern agriculturally sound, mostly urbanized, industrialized, irrigated tahsils show moderate to high status of women and moderate to very high status of men, whereas less urbanized, agriculturally less developed, drought-prone eastern, western and southern tahsil denotes very low to low level status with respect to women and men. Further, it is proved from the correlation analysis that, higher is the level of urbanization, higher is the proportion of urban population, correspondingly higher is the literacy rate and work participation rate in non-agricultural sector of both the sexes and accordingly higher is their socio-economic status. Therefore it is strongly proves that the tahsil having better off with respect to men's status, the women's status is also comparatively better off.

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