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RESEARCH ARTICLE

A Statistical Approach to Study the Socio Demographic Profile of Working Women of Rural and Urban Area of the Three Districts of Karnataka State -A Case Study

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Abstract

Working women in the contemporary society are increasing day by day particularly in the urban area mainly due to the impact of education, employment opportunities, women reservation policies and so on to mention a few. This paper is mainly devoted to analyze and compare the social profile of rural and urban working women of the three districts of Karnataka state based on different demographic factors age, education, marital status, family type, monthly income, monthly saving and residence type with respect to area. It is essential to determine whether there is a difference in rural and urban working women in different socio-demographic characters. This is measured by testing the association between different demographic factors and area using Chi-square test through SPSS package.

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Introduction:-

Globalization and liberalization increased the opportunities in active participation of any economic activities irrespective of gender in particular women work force. The percentage of women in the active work population has increased rapidly in many countries around the world, including in India. The investigation of women participation in various types of occupation in the rural and urban area of three districts viz: Belgaum, Vijaypur and Bagalkot of Karnataka state is dealt by Hungund. C.P.S. and Vinayak. S Kulkarni (2). In this paper an association between various types of occupation and area were identified using chi-square test. In the present paper the personal profile of working women basing on different demographic factors with respect to area was done through collecting primary data using questionnaire method. The association between various demographic factors and area were tested by using chi-square test to know is there a difference in working women in different socio demographic factors with respect to area. The symmetric measures Phi, Cramer's V, Contingency coefficients are also measured to know the strength of the association between demographic factors and area using SPSS package.

Reveiw of Literature:-

In the paper Hayrol Azril ,Mohamad Shaffril and Jegak ULI(1) dealt the problem of “ The Influence of Socio demographic Factors on Work Performance among Employees of Government Agriculture Agencies in Malaysia”. This study intends to discover what exactly affect work performance among employees of government agriculture agencies in Malaysia. A total of 180 employees were selected as the respondents for this study. The respondents were chosen from ten government agriculture agencies in Malaysia. From the ANOVA and independent t-test conducted, type of residential house was found to have significant difference with work performance while Pearson Correlation employed indicated that age, working experience and gross monthly salary has significant and positive relationship with work performance.

In the paper Jyotiranjan Sahoo et al (3) entitled “Do Socio-Demographic Factors still Predict the Choice of Place of Delivery”-A cross-sectional study in rural North India” the study was carried out to determine the prevalence of home delivery and different socio-demographic factors associated with them. This study was a community-based

cross-sectional study. Women who delivered a baby in the past 1 year were included in this study. A total of 300 women responded (93.2%) and gave consent to participate in the study. Prevalence of home delivery was 37.7%. Bivariate analysis showed that religion, caste, education of women and their partners, occupation of the spouse, monthly family income and socioeconomic status had a significant association with the choice of place of delivery. But multivariate regression analysis showed only religion, caste, education of spouse and monthly income to be significant factors in determining place of delivery. The findings of this study suggest that individual countries have to formulate interventions which will target marginalized or vulnerable populations with reference to caste, religion and wealth. A significant improvement in reaching the 5th MDG can be achieved if the first three MDG goals are focused on, i.e., eradication of poverty, achieving universal education and women empowerment.

Massiah J (4) presented "Employed women in Barbados: a demographic Profile, 1946-1970" which is based on data from population censuses from 1946, 1960, and 1970, analyzes demographic factors associated with female labor force participation in Barbados. The general worker rate among women had declined in the post-World War II period from 58.3% in 1946 to 45.6% in 1970; however, the rate for men showed a similar decline in this period, from 92.0% to 80.7%. The dissimilarity index of the age composition of male and female workers was only 4.8 in 1970, and the pattern of female age-specific worker rates at ages below 50 years is gradually approaching that of males. Female worker rates by education continue to be lower than those for males, yet are increasing for women in the higher educational categories. In 1970, 66% of working women were mothers. Younger working and nonworking women reveal lower levels of fertility than older women, although nonworking women tend to reveal higher fertility levels at all ages than their working counterparts. Labor force participation rates decline with parity. Among mothers, 1970 worker rates rose gradually to a peak of 52% at age 25-29 years, then assumed a plateau-like shape until age 45-49 years before beginning a gradual decline. In contrast, among non mothers, the curve rises from 40% at ages 15-19 years to a peak of 72% at age 25-29 and then drops to 48% for women at the end of the age span.

Preliminary Statistical Analysis:-

In this section, where association between different demographic factors and area were identified using chi-square test.

Association between age and area:-

In this section we test the following hypothesis

H0: There is no significant association between age and area

Table 3.1.1:- Age and Area of the respondents

		Crosstab			
		Area			
Age(yr)		Rural	Urban	Total	
20 – 35	Count	56	73	129	
	% within Age	43.4%	56.6%	100.0%	
35 – 50	Count	96	160	256	
	% within Age	37.5%	62.5%	100.0%	
Above 50	Count	18	97	115	
	% within Age	15.7%	84.3%	100.0%	
Total	Count	170	330	500	
	% within Age	34.0%	66.0%	100.0%	

Table 3.1.2 :- Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.741 ^a	2	.0001
Likelihood Ratio	25.943	2	.0001
Linear-by-Linear Association	20.171	1	.0001
N of Valid Cases	500		

A. 0 cells (.0%) have expected count less than 5. The minimum expected count is 39.10.

From the above table, the result is significant since significant value is less than 0.05. Hence we reject null hypothesis, which indicates that there is an association between demographic factor age and area.

		Value	Approx. Sig.
Nominal by Nominal	Phi	.218	.0001
	Cramer's V	.218	.0001
	Contingency Coefficient	.213	.0001
	N of Valid Cases	500	

Phi, Cramer's V and Contingency Coefficient measures the strength of the association. One can observe from the Table-3.1,3 that the association between demographic factor age and area is 0.218. It means that there is 21.8% of association between age and area.

Association between education and area:-

H0: There is no significant association between demographic factor education and area

Table 3.2.1: Education and Area of the respondents

Education	Status	Area		Total	
		Rural	Urban		
Primary / S.S.L.C	Married	Count	63	106	169
		% within row	37.3%	62.7%	100.0%
PUC / Degree	Married	Count	88	172	260
		% within row	33.8%	66.2%	100.0%
P.G/ Ph.D	Married	Count	19	52	71
		% within row	26.8%	73.2%	100.0%
Total	Married	Count	170	330	500
		% within Education	34.0%	66.0%	100.0%

Table 3.2.2 :- Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.470 ^a	2	.291
Likelihood Ratio	2.526	2	.283
Linear-by-Linear Association	2.298	1	.130
N of Valid Cases	500		

A. 0 cells (.0%) have expected count less than 5. The minimum expected count is 24.14.

From the above table, the chi-square test reveals that the result is not significant since significant value is more than 0.05. Hence we accept the null hypothesis, that is, there is no significant association between demographic factor education and area.

Table 3.2.3:- Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.070	.291
	Cramer's V	.070	.291
	Contingency Coefficient	.070	.291
	N of Valid Cases	500	

The symmetric measures reveals that the strength of an association between demographic factor education and area is very weak, that is, 0.070. It means that, only 7% of association between education and area.

Association between marital status and area:-

H0: There is no significant association between demographic factor marital status and Area

Table 3.3.1:- Marital status and Area of the respondents

Marital	Status	Area		Total	
		Rural	Urban		
Un-	Married	Count	50	65	115
		% within row	43.5%	56.5%	100.0%
Married	Married	Count	120	265	385
		% within row	31.2%	68.8%	100.0%
Total	Married	Count	170	330	500
		% within row	34.0%	66.0%	100.0%

Table 3.3.2 :- Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5.979 ^a	1	.014		
Continuity Correction ^b	5.443	1	.020		
Likelihood Ratio	5.831	1	.016		
Fisher's Exact Test				.018	.010
Linear-by-Linear Association	5.967	1	.015		
N of Valid Cases	500				
A. 0 cells (.0%) have expected count less than 5. The minimum expected count is 39.10. B. Computed only for a 2x2 table					

Table-3-3-2 indicates that the result is significant since the significant value is less than 0.05. Hence we reject the null hypothesis, that is, there is an association between demographic factor marital status and area.

Table 3.3.3 :- Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.109	.014
	Cramer's V	.109	.014
	Contingency Coefficient	.109	.014
	N of Valid Cases	500	

It is found that the strength of the association between demographic factor marital status and area is 0.109. It indicates that there is 10.9 % of association between marital status and area.

Association between family type and area:-

H0: There is no significant association between demographic factor family type and area

Table : 3.4.1 Family type and Area of the respondents

Crosstab					
Family	Type	Area			Total
		Rural	Urban	Total	
Single		Count	101	269	370
		% within row	27.3%	72.7%	100.0%
Joint		Count	69	61	130
		% within row	53.1%	46.9%	100.0%
	Total	Count	170	330	500
		% within row	34.0%	66.0%	100.0%

Table 3.4.2 : Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	28.491 ^a	1	.0001		
Continuity Correction ^b	27.354	1	.0001		
Likelihood Ratio	27.527	1	.0001		
Fisher's Exact Test				.0001	.0001
Linear-by-Linear Association	28.434	1	.0001		
N of Valid Cases	500				
A. 0 cells (.0%) have expected count less than 5. The minimum expected count is 44.20.					
B. Computed only for a 2x2 table					

From the above table, it shows that the result is significant since significant value is less than 0.05. Hence we reject null hypothesis, which indicates that there is an association between demographic factor family type and area.

Table 3.4.3 : Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.239	.0001
	Cramer's V	.239	.0001
	Contingency Coefficient	.232	.0001
	N of Valid Cases	500	

From the above table one can observe that the strength of the association between demographic factor family type and area shows 0.239. It means that, the strength of the association between family type and area is 23.9 %.

Association between monthly income and Area:-

H0: There is no significant association between monthly income and area.

Table 3.5.1:- Monthly income and Area of the respondents

Crosstab					
Income	('000Rs.)		Area		Total
			Rural	Urban	
Below10		Count	99	157	256
		% within	38.7%	61.3%	100.0%
10 – 20		Count	45	70	115
		% within	39.1%	60.9%	100.0%
20 – 30		Count	25	62	87
		% within	28.7%	71.3%	100.0%
Above30		Count	1	41	42
		% within	2.4%	97.6%	100.0%
Total		Count	170	330	500
		% within	34.0%	66.0%	100.0%

Table 3.5.2:- Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.626 ^a	3	.0001
Likelihood Ratio	31.643	3	.0001
Linear-by-Linear Association	16.638	1	.0001
N of Valid Cases	500		

From the above table, it shows that the result is significant since significant value is less than 0.05. Hence we reject the null hypothesis. Which indicates that there is an association between monthly income and area.

Table 3.5.3:- Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.217	.0001
	Cramer's V	.217	.0001
	Contingency Coefficient	.212	.0001
	N of Valid Cases	500	

It is found that the strength of the association between monthly income and area is 0.217, which indicates that there is 21.7 % of association between monthly income and area.

Association between monthly savings and Area:-

We test the following hypothesis by using chi square test

H0: There is no significant association between monthly savings to area.

Table :3. 6.1:- Monthly savings and Area of the respondents

Crosstab					
Savings (%)			Area		Total
			Rural	Urban	
Below 10		Count	60	102	162
		% within savings	37.0%	63.0%	100.0%
10 - 20		Count	81	163	244
		% within savings	33.2%	66.8%	100.0%
Above 20		Count	29	65	94
		% within savings	30.9%	69.1%	100.0%
Total		Count	170	330	500
		% within savings	34.0%	66.0%	100.0%

Table :3. 6.2:- Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.151 ^a	2	.562
Likelihood Ratio	1.149	2	.563
Linear-by-Linear Association	1.119	1	.290
N of Valid Cases	500		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 31.96.

From the above table, the result is not significant since significant value is more than 0.05. Hence we accept the null hypothesis, which implies that there is no association between demographic factor monthly savings and area

Table : 3.6.3:- Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.048	.562
	Cramer's V	.048	.562
	Contingency Coefficient	.048	.562
	N of Valid Cases	500	

It is found that an association between demographic factor monthly saving and area is 0.048. It means that, only 4.8 % of association between monthly income and area.

Association between residence type and Area:-

H0: There is no significant association between residence type and area.

Table : 3.7.1:- Residency type and Area of the respondents

Crosstab					
Residency	Type		Area		Total
			Rural	Urban	
Own House		Count	85	130	215
		% within row	39.5%	60.5%	100.0%
Rent		Count	77	158	235
		% within Row	32.8%	67.2%	100.0%
Others		Count	8	42	50
		% within Row	16.0%	84.0%	100.0%
	Total	Count	170	330	500
		% within Row	34.0%	66.0%	100.0%

Table : 3.7.2:- Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.314 ^a	2	.006
Likelihood Ratio	11.225	2	.004
Linear-by-Linear Association	9.227	1	.002
N of Valid Cases	500		

A. 0 cells (.0%) have expected count less than 5. The minimum expected count is 17.00.

From the above table, the result is significant since significant value is less than 0.05. Hence we reject the null hypothesis, that is, there is an association between demographic factor residence type and area.

Table : 3.7.3:- Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.144	.006
	Cramer's V	.144	.006
	Contingency Coefficient	.142	.006
	N of Valid Cases	500	

From the above table it is found that the association between residency type and area is 0.144. It means that, there is 14.4 % association between residency type and area

Conclusion:-

The Statistical analysis of social profile of rural and urban working women of the three districts in Karnataka state was done by testing the association between various demographic factors and area of the respondents using chi-square test. From the analysis it reveals that the null hypotheses are rejected in the cases of testing the association between the demographic factors age, marital status, family type, monthly income, residence type and area of the respondents. In all the cases the significant value is less than 0.05. Which means that there is a significant association between the above mentioned demographic factors and area of the respondents. The study reveals that there is a significant difference in rural and urban working women in above mentioned demographic factors. One can observe

that the association between the demographic factors education and monthly saving with area gives the chi-square value more than 0.05 which accepts the null hypotheses. Which indicates that there is no significant association between area and demographic factors education and monthly saving. Which indicates that there is no significant difference in rural and urban working women according to demographic factors education and monthly saving. The extent to which the variables are associated is measured by the symmetric measures of Phi, Cramer's V and Contingency table. The strength of the association between the variables varies from 4.8% to 23.9%. The maximum strength of association is found for area and the demographic factors family type, that is, nearly 24% followed by age and monthly income nearly 22%. The minimum strength of association is found between area and the demographic factors education and monthly saving of strength 7% and 5%.

The study highlighted the role of working women in socio-economic development by studying level of participation in different types of occupations based on different demographic factors in three districts of Karnataka state with respect to area. The role of women in the social profile and status should be appreciated.

References:-

1. hayrolazril, Mohamad Shaffril and Jegak ULI(2010):The Influence of Socio demographic Factors on Work Performance among Employees of Government Agriculture Agencies in Malaysia. The Journal of International Social Research, Vol 3/10, PP 1- 11.
2. Hungund. C.P.S. and Vinayak. S Kulkarani (2016): Statistical Analysis of Participation of Working Women in Various types of Occupations by Area of the Three Districts of Karnataka State- A Case Study. International Journal of Advanced Research, Vol 4, Issue4, Pp 351-356.
3. jyotiranjansahoo et al (2015):Do Socio-Demographic Factors Still Predict the Choice of Place of Delivery: A Cross-Sectional Study in Rural North India. Journal of Epidemiology And Global Health, Volume 5, Issue 4, Pages S27- S34.
4. Massiah jcave Hill, Barbados(1994) : Institute of Social and Economic Research (Eastern Caribbean), University of the West Indies, ©1984.