SOCIO-ECONOMIC DETERMINANTS AND CRIME IN SATARA DISTRICT.

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Abstract:

Crime is a multidisciplinary task that deals with criminology, economics, sociology, geography, and demography. Demographic determinants such as education, age, occupation and income strongly affect crime. Education makes individual antipathetic to risk. Employment reduces chances of crime in society. Specific crimes are age selective. Study checks determinants of crime with the help of Chi-Square test of independence. Results concluded that crime and socio-economic determinants like education occupation and age are dependent. Whereas crime and income of victim does not show dependency. Highly educated women are less prone to the crimes. Middle age women are victim to the crime than any other age group. Women in service sector are less exposed to the crime. Income group does not depend on crimes in the region.

Index Terms: Education, Occupation, Demographic, Socio-economic determinants, Chi-Square

Introduction:

Crime is a multidisciplinary task that deals with criminology, economics, sociology, geography, and demography. Researchers have concluded that unemployment is strong determinant of crime. Demographic variables also have remarkable effect on crime rate. Entrof and Spengler (1998) compared crime rates in East and West Germany and found higher crime rates in East Germany mainly due to differences in income opportunity. They also mentioned significant effect of demographic variables on crime. Loncher and Moretti (2003) state that schooling significantly reduces crime rates and education make individuals antipathetic to risk. There is inverse relation in educational attainment and crime rates of a region. Even some scholars believe that there is negative relation between income and crime. Income inequality, level of education, family background, age, and gender may affect individual's inclination to commit the crime. More proportion of criminal activities is commonly seen in early adulthood and then it tappers off. Specific crimes like domestic violence, rape or kidnapping are age selective. Striking increase in gender violence over the last years have got more attention towards a crime in concern with social determinants. Present study aims to know the socio-economic determinants of crime in Satara district.

Socioeconomic parameters like population density, literacy and employment rate affect the criminal conditions in the region. Especially crimes against women are strongly affected by social conditions. Their secondary status in society leads them to be victim of wrong doings. Literate women are aware of their rights in society. If more number of people in society are engaged in legal way of earnings there will be less possibilities of illegal behaviors.

Study Region:

Area of Satara district is spread over 10480 sq.km. The study area extends from 17°5' to 18°11' North latitude and 73°33' to 74°57' East longitudes. There are six revenue divisions and seven police divisions in the district. 28 police stations are spread within these seven police divisions. 1492899 is the female population of the study region. Satara district comes under Kolhapur range of Pune Commissionerate. Kolhapur range stands fourth in total IPC crimes (2011) in Maharashtra. Satara district has fourth rank in sex ratio in Maharashtra as per census 2011. It scores eleventh rank in literacy and tenth in population density in the state.
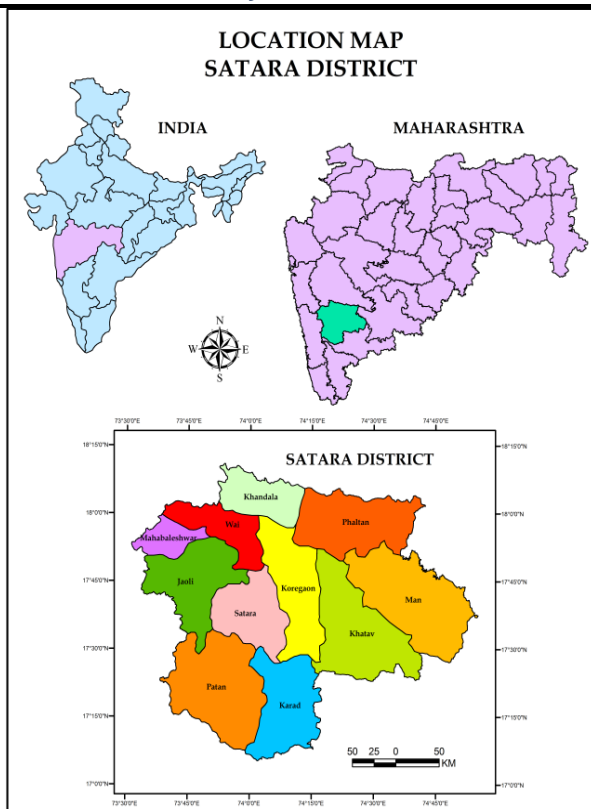
Fig. 1: Location Map

Objective:

        1. To study the socio-economic determinants of crime.

Data base:

        Study is based on primary data. Primary data has been collected by a sample of 260 women victims in the study region. Study region comprises of seven police divisions for the ease of police patrolling. Questionnaire had been set to gain the information about personal profile of victim and their family background. From which data regarding their income, occupation, education and age has been derived. These 260women victim has experienced different types of crime including domestic violence, rape, molestation, kidnapping, POCSO to name a few.

Methodology:

        Data collected by questionnaires from 260 women victim is divided into socioeconomic parameters like age, income group, education and occupation. Each parameter is further subdivided. Women victims as per crime experienced by them are classified into these parameters. Chi- Square test for independence has been applied to see whether the socio-economic parameters and crime are dependent or independent.

Results:

Crime and Education:

<p align="center">**Table 1**</p>

<p align="center">**Observed Frequencies**</p>

Education	Domestic Violence	Rape &Murder	Kidnapping	Other	Total
Illiterate	34	14	22	18	88
S.S.C.	53	16	35	39	143
H.S.C. and above	6	11	5	7	29
Total	93	41	62	64	260

Null Hypothesis H_0 : There is no association between crime and education of victim.

<p align="center">**Table 2**</p>

<p align="center">**Expected Frequencies**</p>

Expected Values	Domestic Violence	Rape &Murder	Kidnapping	Other	Total
Illiterate	31.47692308	13.87692308	20.98461538	21.66153846	88
S.S.C.	51.15	22.55	34.1	35.2	143
H.S.C. and above	10.37307692	4.573076923	6.915384615	7.138461538	29
Total	93	41	62	64	260

<p align="center">**Table 3**</p>

<p align="center">**Computation of Chi-Square**</p>

$(O_i-E_i)^2/E_i$	0.20224077	0.001091591	0.049131514	0.618924825	0.8713887
	0.066911046	1.902549889	0.023753666	0.410227273	2.40344187
	1.843599726	9.032286343	0.530512535	0.002685676	11.4090843
	2.112751542	10.93592782	0.603397715	1.031837774	14.6839149

Calculated Value: 14.68

Tabulated Value: 12.592

As calculated value is greater than tabulated value we reject the null hypothesis H_0 at 5% level of significance.

Crime and Occupation

<p align="center">**Table 4**</p>

<p align="center">**Observed Frequencies**</p>

Occupation	Domestic Violence	Rape &Murder	Kidnapping	Other	Total
Service Sector	7	1	3	2	13
Farm Labour & Maid Servants	26	13	17	6	62
Unemployee	60	28	42	45	175
Prostitutes	0	0	0	10	10
Total	93	42	62	63	260

Null Hypothesis H_0 : There is no association between crime and occupation of victim.

Table 5

Expected Frequencies

Expected Values	Domestic Violence	Rape &Murder	Kidnapping	Other	Total
Service Sector	4.65	2.1	3.1	3.15	13
Farm Labour & Maid Servants	22.17692308	10.01538462	14.78461538	15.02307692	62
Unemployee	62.59615385	28.26923077	41.73076923	42.40384615	175
Prostitutes	3.576923077	1.615384615	2.384615385	2.423076923	10
Total	93	42	62	63	260

Table 6

Computation of Chi-Square Table

(Oi-Ei)^2/Ei	Domestic Violence	Rape &Murder	Kidnapping	Other	Total
Service Sector	1.187634409	0.576190476	0.003225806	0.41984127	2.18689196
Farm Labour & Maid Servants	0.65905974	0.889424554	0.331961899	5.419390287	7.29983648
Unemployee	0.107674583	0.002564103	0.001736973	0.158948195	0.27092385
Prostitutes	3.576923077	1.615384615	2.384615385	23.69291819	31.2698413
Total	5.531291809	3.083563748	2.721540062	29.69109794	41.0274936

Calculated Value: 41.02

Tabulated Value: 16.919

As calculated value is greater than tabulated value we reject the null hypothesis H_0 at 5% level of significance.

Crime and Income:

Table 7

Observed Frequencies

Income Groups	Domestic Violence	Rape &Murder	Kidnapping	Other	Total
Above 6 Lakh	8	3	7	6	24
1.6 To 5 Lakh	51	24	42	38	155
Below 1.5 Lakh	34	15	13	19	81
Total	93	42	62	63	260

Null Hypothesis H_0 : There is no association between crime and income of victim.

Table 8

Expected Frequencies

Expected Values	Domestic Violence	Rape &Murder	Kidnapping	Other	Total
Above 6 Lakh	8.584615385	3.876923077	5.723076923	5.815384615	24
1.6 To 5 Lakh	55.44230769	25.03846154	36.96153846	37.55769231	155
Below 1.5 Lakh	28.97307692	13.08461538	19.31538462	19.62692308	81
Total	93	42	62	63	260

Table 9

Computation of Chi- Square

(Oi-Ei)^2/Ei	Domestic Violence	Rape &Murder	Kidnapping	Other	Total
Above 6 Lakh	0.039812517	0.198351648	0.28490488	0.005860806	0.52892985
1.6 To 5 Lakh	0.355939326	0.043069833	0.686824622	0.005208949	1.09104273
Below 1.5 Lakh	0.872187503	0.28038258	2.064886806	0.020025174	3.23748206
Total	1.267939346	0.521804062	3.036616308	0.031094928	4.85745464

Calculated Value: 4.857

Tabulated Value: 12.591

As calculated value is lesser than tabulated value we accept the null hypothesis H_0 at 5% level of significance.

Crime and Age

Table 10

Observed Frequencies

Age group	Domestic Violence	Rape &Murder	Kidnapping	Other	Total
Below18	20	7	8	22	57
19 To 35	67	32	51	41	191
Above 36	6	3	3	0	12
Total	93	42	62	63	260

Null Hypothesis H_0 : There is no association between crime and age group of victim.

Table 11

Expected Frequencies

Expected Values	Domestic Violence	Rape &Murder	Kidnapping	Other	Total
Below18	20.38846154	9.207692308	13.59230769	13.81153846	57
19 To 35	68.31923077	30.85384615	45.54615385	46.28076923	191
Above 36	4.292307692	1.938461538	2.861538462	2.907692308	12
Total	93	42	62	63	260

Table 12

Computation of Chi-Square

(Oi-Ei)^2/Ei	Domestic Violence	Rape &Murder	Kidnapping	Other	Total
Below18	0.007401361	0.529329735	2.30085325	4.854701926	7.69228627
19 To 35	0.025474084	0.042577144	0.653061463	0.602550998	1.32366369
Above 36	0.679404467	0.581318681	0.006699752	2.907692308	4.17511521
Total	0.712279912	1.15322556	2.960614465	8.364945231	13.1910652

Calculated Value: 13.191

Tabulated Value: 12.591

As calculated value is greater than tabulated value we reject the null hypothesis H_0 at 5% level of significance.

Conclusions:

Education plays an important role in crime against women. Women victims those who were highly educated were less prone to the crimes. Education brings out awareness for self-defense. That protects individuals from being victim. Women who were illiterate were moderately threaten but women who were educated till S.S.C. were highly victimized. Occupation and crime are dependent. Women victims who were unemployed were more exposed to the crime than the women victims who were engaged in occupations like farm labors and maid servants. Women in service sector were less exposed to the crime incidences. Statistical analysis shows no relation in income of victim and victimization to crime but general observations say that women victim belonging to the middle income group of 1.6 lakh to 5 lakh were more exposed to the crimes than the higher and lower income group victims. More considerable number of women of young age from19- 35 years experienced large share of violence. They were at higher risk of being physically abused. Next to them was the age group of below 18 which was moderately threaten. As against women of higher age group faced less crimes.

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