



CORRELATION MATRIX OF FACTORS CAUSING FARMERS SUICIDE

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ABSTRACT

Theory of fuzzy sets even still today is very young, but has already been applied to quite a number of research problems. In this project, Illustration shows how to fuzzify a real problem where uncertainties exist.

The case Study: My research goes deep into roots of the problems of farmers suicide based on number of factors. Suicide has cumulative causation. It occurs due to various reasons and sometimes the circumstantial evidence leads to reach conclusion but more often such inference may be wrong. Understanding the processes and situations leading to a suicidal state and its consequent influence on its decision making process is a key to understand suicide. It results from a complex interaction of Psychological, social, cultural, financial and environmental factors

My research project seeks to understand the causes of suicide through various causative factors, for this first I made fuzzy questionnaires. Questionnaires are fundamental tools for analyzing structures of information. As the investing is more focused on farmers suicides naturally fulcrum of analysis is farm centered activities but at the same time other qualitative factors imparting suicides is to be explained in clear detail.

My aim is to discuss two major issues namely causes and consequence of suicide and strategies to overcome suicide, so that this paper will be of great help to the policy makers and social scientist who are engaged in development work. Though the Major goal is of getting insight in to a social problem, I have used the survey data to illustrate how fuzzification can help in formulating the problem when many aspects do not fall under the traditional two valued logical domain.

KEYWORDS : Fuzzy Sets, Social Survey, Correlation Matrix

The discussion in this paper is drawn from the main data. Here the major focus of the discussion is on detoxified micro level causes that are forcing small & marginal farmers to commit suicide.

The purpose of the study was to examine (1) the basic elements of distress increasingly faced by farmers which are driving them to commit suicide. (2) The pressing demands that have pushed the farmers into debt trap. (3) The role of institutional support.

Through purposeful sampling method 64 affected families were selected for in depth study. The out come of the study were mainly analyzed from qualitative & quantitative research methods such as focus group discussions time analysis seasonal analysis risk analysis personal interviews & pre tested questionnaire.

According the study is based on the data generated form both secondary as well as primary field sources in three selected taluka Kalam Ghatanji & Yavatmal.

Althotner the study covered 64 cases of farmers out of which 32 are distressed farmers that is non control group& 32 are controlled farmers. All the farmers having land less than 5 acres. Constituted the sample space.

Date collection is given through questionnaire. It is given in appendix I questionnaire constituted on

A :-Personal information
B :-His opinion about important factors affording agriculture or Effenay of farmers.

The respondent was mostly the victim's wife and in few others cases the mother of the victim or the grown up son depending upon their availability at the time of our visit.

• **TableNoI**

Distribution of questionnaire according to basic parameters.

Q 2	Seeds
Q 3	Irrigation System

Q4	Intra structure development of Agriculture (Krushi Utppanna Bazar Samitee
Q5	Harrsement of Reocery of loan
Q 6	Changing crop pattern
Q 7	Lack of remunerative price
Q 8	IDEBTNESS
Q 9	Apathy of nationalized bank to disbursed sufficient crop credit
Q 10	Alcoholism & prevalence Addiction
Q 11	Power Supply
Q 12	Government Policy
Q 13	Whether expenditure is proportional to earnings ?
Q 14	psychosocial factors & 1)Family disorder 2) Marriage problem of Adult daughter 3) Cronic Diseases Within family 4) Depression due to loss social & economical status
Q 15	Development of communication method of transport

Basic Parameters	Question Nos.
Resource availability	2,3,11
Infra Structure	4, 9, 7, 12, 15
Effect	13, 6, 8
Stress	8, 5, 9, 10, 14

Thus above table gives complete structure of questionnaire.

The rational for selecting these taluka was high incidence of problem in each of these taluka.

The sample includes control & non control i.e. distress groups. Purposive random sampling method was adopted. We have selected the suicide cased randomly in each taluka based on the news paper report.

Haines Selecta the cases villagers were identified for the interaction. The study is based on the primary data collected from bereaved families village panchayat members small & marginal farmers & others in the village, primarily individual meetings with the deceased families enabled obtaining first hand in formation letter on focus group discussion were conducted involving panchayan president ward member & farmers.

Besides some key informant were identified like old people from whom valuable information on the economic position of their family was obtained. The farmers are supposed to answer in the range of -5 to 5 i.e. 11 point scale for the questions two to fifteen.

Description about scale.

Q.No.2:-If the score is +ve seed is important factor . If score is negative then it is not so important.

Q.No.3:-If the score is positive then irrigation constituent is important if the score is negative then irrigation constituent is not so important for raising the efficiency of land.

Q.No.4:-If the score is positive then good facility is available. If the score is negative then its means facility is not satisfactory or it is unavailable.

Q.No.5:-This question is regarding harassment of recovery of loan. If the score is negative means harassment of recovery of loan is not so important . and if score is positive then. Harassment of recovery of loan is important.

Q.No.6:-If the Score is negative then we consider that farmer is traditional. Attitude of the farmer is negative .If the Score is positive then attitude of farmer is positive.

Q.No.7:-If the score is positive then economic attitude is positive. If the score is negative economic attitude is negative.

Q.No.8:-If the score is negative the effect of indebtedness is more if the score is positive then effect of indebtedness is less.

Q.No.9:-If the score is negative then apathy of nationalized bank to disbursed sufficient crop credit is not satisfactory i.e. unsatisfactory. If the score is Positive then apathy of nationalized bank to disbursed sufficient crop credit is satisfactory.

Q.No.10:-Negative score shows more addiction & positive score shows less addiction.

Q.No.11:-Negative score means availability of the power supply is less i.e. not satisfactory .Positive score means availability of the power supply is satisfactory.

Q.No.12:-Negative score means. The effects of Government policies to are not satisfactory. Positive score means the effect of government policies are satisfactory.

Q.No.13:-Negative score means Importance of proportionality to raise the efficiency of farmer is not understood by the farmer. Their expenditure is not proportional to earning & positive score means their expenditure is proportional to earning. They know the importance.

Q.No.14:-Negative score means high intensity problem Positive score means low problems intensity.

Q.No.15:-Negative score means development of communicable method of transport is not satisfactory. & Positive Score means. Development of communicable method is satisfactory.

The methodology for this study is completely participatory Interactive interviews and discussions is taking up at the residence of deceased families to elicit qualitative information pertaining to farmer suicides. It is basically a non survey method wherein case studies have been developed based on individual meeting and focus group discussions Although larger surveys are important ,such surveys may not capture specific situations or deviant cases. Hence, individual interactive meeting with deceased (frustrated)

families and key informants have supplemented the information collected in focus group discussions. The respondents included control and non control groups The study area covered U={farmers in Ghantaji, Yavatmal kalumb taluka } The rationale for selecting these talukas was high incidence of problems in each of these regions the sample includes control and non control groups. Purposive random sampling method was adopted. The farmer suicides took place mainly in vidharbha in maharashtra out of which we have selected yavatmal since it was most affected Later on, we have selected suicides cases randomly on newspaper report. Having selected cases, relatives and villagers were identified for interaction.

The study is based on primary data collected from bereaved families ,village panchayat members ,small and marginal farmers and others in the village Primary individual meeting with deceased families enabled obtaining first hand information . Later on, focus group discussions were conducted involving village surpanch ,gram sevak, farmers and others Besides, some key informants were identified (like old people) from whom valuable information's on economic positions of the deceased and their family was obtained . The information collected was cross checked immediately with others too. The study is going on till today I have collected data of near about 35 suicidal farmers .

The outcome of the study will be mainly analyzed from qualitative and quantitative research methods ,such as focus group discussions time line analysis, seasonal analysis public expenditure tracking system risk analysis ,personal interviews, and pre tested questionnaire.

Interdisciplinary relevance.

The inventory of successful application of fuzzy set theory has been growing steadily. Few areas of mathematics, science and engineering system remain that have not been affected by theory.

New attempt will be made to find causes and remedy on the problem with the help of fuzzy mathematics. It is entirely new approach .I wish I will find some concrete solution.

It is a matter of great concern over the increasing number of farmers committing suicides in different parts of the country. Therefore it is high time to take up rational and scientific approach to prevent problem. Suicides by farmers should not be politicized. An understanding of various issues involved and honest approach is required. Not all the suicides are preventable however by ensuring that we employ the best practices based on current knowledge in the field, we can minimize the risk for those individuals with whom we work.

Relevance to present day problems\needs

India is mainly an agricultural country where 80% of population subsides or agricultural related occupation A good year for agricultural is a good year for all around A bad year for agricultural is a bad year all around After globalization the objects of states policy is to increase standard of living farmer. The present problem is how agriculturist will increase his income with the help of this research we may solve the problem of agriculturist

Relevance to need of the society.

Today out of revenue of the state the bulk is spend on schemes and yet highest no farmers are living in poor condition and attempting suicide in vidharbha Hence to uplift the security of the life for the farmers and to remove his farmers is a prime need of society... Hence our research will decrease the fear and insecurity of farmers Details of tools equipments required for the project We have used fuzzy questioners as a tool as they are important for analyzing structures of information we are planning to use multivariate analysis techniques.

Co- relation matrix for good famrers

1	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2	0.27	-	-0.80	-0.30	-0.37	-0.59	-0.83	-0.76	0.00	-0.82	0.00	0.00	0.00	0.00
3	0.12	-0.80	-	0.34	-0.03	0.29	0.60	0.36	0.00	0.72	0.00	0.00	0.00	0.00
4	-0.30	-0.30	0.34	-	0.11	-0.09	-0.28	-0.26	0.00	0.20	0.00	0.00	0.00	0.00
5	-0.37	-0.37	-0.03	0.11	-	0.36	0.30	0.28	0.00	0.43	0.00	0.00	0.00	0.00
6	-0.56	-0.59	0.29	0.09	0.36	-	0.65	0.70	0.00	0.48	0.00	0.00	0.00	0.00
7	-0.25	-0.83	0.60	-0.28	0.30	0.65	-	0.91	0.00	0.71	0.00	0.00	0.00	0.00
8	-0.37	-0.76	0.36	-0.26	0.28	0.70	0.91	-	0.00	0.62	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	1.00	1.00	-1.00	1.00
10	0.03	-0.82	0.72	0.20	0.43	0.48	0.71	0.62	0.00	-	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	-	1.00	-1.00	1.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	-	-1.00	1.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-1.00	0.00	-1.00	-1.00	-	-1.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	1.00	-1.00	-

- relation matrix for uncontrolled farmers (distressed)

1	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2	0.69	-	-0.01	0.41	-0.06	-0.29	0.02	0.33	0.08	0.19	-0.11	-0.04	0.30	0.25
3	0.34	-0.01	-	0.14	0.45	-0.45	0.80	0.18	-0.46	0.22	-0.51	0.72	0.40	0.78
4	0.41	0.41	0.14	-	0.37	-0.14	0.35	0.00	-0.04	-0.16	-0.30	0.35	0.07	0.42
5	0.07	-0.06	0.45	0.37	-	0.00	0.69	0.22	0.12	0.09	-0.58	0.60	0.02	0.54
6	-0.42	-0.29	-0.45	0.14	0.00	-	-0.41	-0.12	0.45	0.04	0.27	-0.39	-0.27	-0.41
7	0.28	0.02	0.80	0.35	0.69	-0.41	-	0.10	-0.31	0.14	-0.66	0.81	0.24	0.82
8	0.36	0.33	0.18	0.00	0.22	-0.12	0.10	-	0.18	0.38	0.08	-0.05	0.42	0.22
9	-0.13	0.08	-0.46	-0.04	0.12	0.45	-0.31	0.18	-	-0.09	0.31	-0.29	-0.02	-0.29
10	0.14	0.19	0.22	-0.16	0.09	0.04	0.14	0.38	-0.09	-	-0.22	-0.02	-0.01	0.32
11	-0.29	-0.11	-0.51	-0.30	-0.58	0.27	-0.66	0.08	0.31	-0.22	-	-0.68	0.27	-0.70
12	0.32	-0.04	0.72	0.35	0.60	-0.39	0.81	-0.05	-0.29	-0.02	-0.68	-	0.12	0.72
13	0.43	0.30	0.40	0.07	0.02	-0.27	0.24	0.42	-0.02	-0.01	0.27	0.12	-	0.09
14	0.36	0.25	0.78	0.42	0.54	-0.41	0.82	0.22	-0.29	0.32	-0.70	0.72	0.09	-

Positive Co- relation matrix for uncontrolled farmers (distressed)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	-	0.69												
2														
3					0.45		0.80						0.72	0.78
4														
5							0.69						0.60	0.54
6														
7													0.81	0.82
8														
9														
10														
11														
12														0.72
13														
14														-

Negative Co- relation matrix for uncontrolled farmers (distressed)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1														
2														
3									0.72					
4														
5														
6						0.65	0.70		0.48					
7						-	0.91		0.71					
8									0.62					
9										1.00	1.00		1.00	
10														
11											1.00		1.00	
12													1.00	
13														
14														

Negative Co- relation matrix for good famrers

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1					-0.56									
2			-0.80		-0.59	-0.83	-0.76		-0.82					
3														
4														

5													
6													
7													
8													
9											-1.00		
10													
11											-1.00		
12											-1.00		
13											-	-1.00	
14											-1.00	-	

Seeds / Fertilizers	Irrigation System	Social Environment	Development of Communication method/Transport	Changing crop pattern	Lack of remunerative price / Information of Technology for efficient Management	Ability of experts scheme	Social Status	Absence due to social function	Work ethics & tendency & Political Stability	Government Policy	Natural Environment / Climate condition Availability of natural resources	Physical Capability of the employee in the area	Location of chilling center / Scope of energy conservation
1	2	3	4	5	6	7	8	9	10	11	12	13	14

Comparative study of Positive Correlation for uncontrolled Farmers & controlled farmers – Table

Sr No	Positive co Relation uncontrolled farmers	No of Factor Related	Degree of dominant for uncontrolled farmers	Positive co Relation controlled farmers	No of Factor Related	Degree of dominant for controlled farmers
1	Seeds / Fertilizers ↔ Irrigation System 0.69	1	1	Seeds / Fertilizers ↔ Nil	--	--
2	Irrigation System <==> NIL	--	-	Irrigation System <==> Nil	-	-
3	Social Environment <==> Changing crop pattern 0.45	4	4	Social Environment <==> Work ethics & tendency & Political Stability 0.72	1	1
	Social Environment Ability of experts scheme 0.80					
	Social Environment Natural Environment / Climate condition Availability of natural resources 0.72					
	Social Environment Location of chilling center / Scope of energy conservation 0.78					
4	Development of Communication method/Transport = Nil	--	-	Development of Communication method/Transport = Nil	--	--
5	Changing crop pattern = Ability of experts scheme 0.69	3	3	Changing crop pattern = Nil	--	--
	Changing crop pattern = Natural Environment / Climate condition Availability of natural resources 0.60					
	Changing crop pattern = Location of chilling center / Scope of energy conservation 0.64					
6	Lack of remunerative price / Information of Technology for efficient Management= Nil	---	-	Lack of remunerative price / Information of Technology for efficient Management= Ability of experts scheme	3	3
				Lack of remunerative price / Information of Technology for efficient Management = Social Status		
				Lack of remunerative price / Information of Technology for efficient Management = Work ethics & tendency & Political Stability		
7	Ability of experts scheme= Natural Environment / Climate condition Availability of natural resources 0.81	2	2	Ability of experts scheme= Social Status	2	2

Correlation matrix for good farmers						
	Ability of experts scheme = Location of chilling center / Scope of energy conservation 0.82			Ability of experts scheme = Work ethics & tendency & Political Stability		
8	Social Status = Nil	-	-	Social Status = Nil	-	-
9	Absence san due to social function = Nil	-	-	Absence san due to social function = Government Policy	3	3
				Absence san due to social function = Natural Environment / Climate condition Availability of natural resources		
				Absence san due to social function = Location of chilling center / Scope of energy conservation		
10	Work ethics & tendency & Political Stability = Nil	-	-	Work ethics & tendency & Political Stability = Nil	-	-
11	Government Policy = Nil	-	-	Government Policy = Natural Environment / Climate condition Availability of natural resources	2	2
				Government Policy = Location of chilling center / Scope of energy conservation	2	2
12	Natural Environment / Climate condition Availability of natural resources = Location of chilling center / Scope of energy conservation 0.72	1	1	Natural Environment / Climate condition Availability of natural resources = Location of chilling center / Scope of energy conservation	1	1
13	Physical Capability of the employee in the area = (Nil)	--	--	Physical Capability of the employee in the area = (Nil)	--	-
14	Location of chilling center / Scope of energy conservation = Nil	--	--	Location of chilling center / Scope of energy conservation = Nil	--	--

From the table we conclude that distressed depends upon 2, 7, 12, 14 i.e. Irrigation System, Ability of experts scheme, Natural Environment / Climate condition Availability of natural resources, Location of chilling center / Scope of energy conservation

Comparative study of Negative Correlation for uncontrolled Farmers & Negative Correlation controlled farmers – Table

Sr No	Negative co Relation uncontrolled farmers	No of Factor Related	Degree of dominant for uncontrolled farmers	Negative co Relation controlled farmers	No of Factor Related	Degree of dominant for controlled farmers
1	Seeds / Fertilizers -Nil	-	-	Seeds / Fertilizers -- Lack of remunerative price / Information of Technology for efficient Management (-0.56)	1	1
2	Irrigation System <=> NIL	--	-	Irrigation System <=> Social Environment (-0.80)	5	5
				Irrigation System <=> Lack of remunerative price (-0.59)		
				Irrigation System <=> Ability of experts scheme (-0.83)		
				Irrigation System <=> Social Status (-0.76)		
				Irrigation System <=> Work ethics & tendency & Political Stability (-0.82)		
3	Social Environment <=> > Lack of remunerative price / (-0.45)	3	3	Social Environment <=> Nil	-	-
	Social Environment <=> > Absence san due to social function (-0.46)					
	Social Environment <=> > Government Policy (-0.51)					
4	Development of Communication method/ Transport = Nil	--	-	Development of Communication method/ Transport = Nil	--	--
5	Changing crop pattern = Government Policy (-0.58)	1	1	Changing crop pattern = Nil	--	--
6	Lack of remunerative price / Information of Technology for efficient Management= Nil	---	-	Lack of remunerative price = Nil	-	-
7	Ability of experts scheme= Government Policy	1	1	Ability of experts scheme= Nil	-	-
8	Social Status = Nil	-	-	Social Status =Nil	-	-
9	Absence san due to social function = Nil	-	-	Absence san due to social function = Physical Capability of the employee in the area (-1)	1	1

10	Work ethics & tendency & Political Stability = Nil	-	-	Work ethics & tendency & Political Stability = Nil	-	-
11	Government Policy = Natural Environment / Climate condition Availability of natural resources (-0.68)	2	2	Government Policy = Physical Capability of the employee in the area (-1)	1	1
	Government Policy = Location of chilling center / Scope of energy conservation (-0.70)					
12	Natural Environment / Climate condition Availability of natural resources = Nil	-	-	Natural Environment / Climate condition Availability of natural resources = Physical Capability of the employee in the area ((-1)	1	1
13	Physical Capability of the employee in the area = (Nil)	--	--	Physical Capability of the employee in the area = Location of chilling center / Scope of energy conservation (-1)	1	1
14	Location of chilling center / Scope of energy conservation = Nil	--	--	Location of chilling center / Scope of energy conservation = Physical Capability of the employee in the area (-1)	1	1

From the table we conclude that distressed depends upon 2, 7, 12, 14 i.e. Irrigation System, Ability of experts scheme, Natural Environment / Climate condition Availability of natural resources, Location of chilling center / Scope of energy conservation

Comparative study of Positive Correlation for uncontrolled Farmers & Negative co-relation for controlled farmers – Table

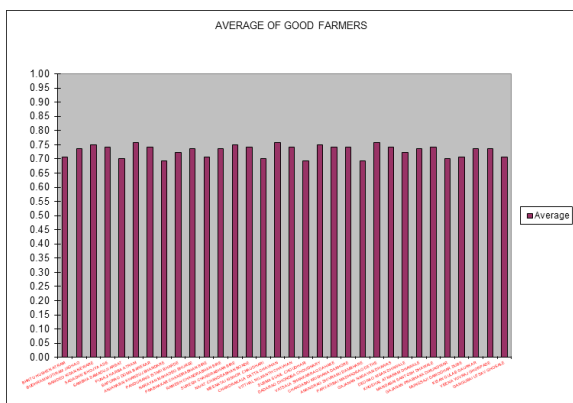
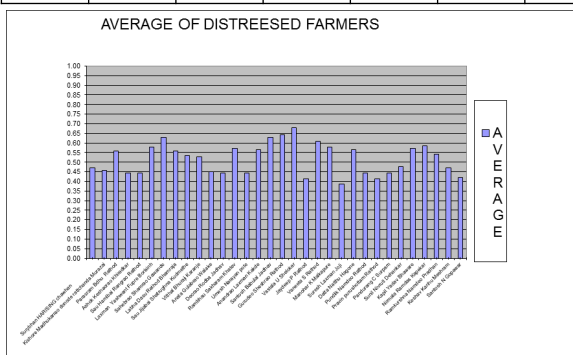
Sr No	Positive co Relation of uncontrolled farmers	No of Factor Related	Degree of dominant for uncontrolled farmers	Positive co Relation of controlled farmers	No of Factor Related	Degree of dominant for controlled farmers
1	Seeds / Fertilizers ↔ Irrigation System 0.69	1	1	Seeds / Fertilizers ↔ Seeds / Fertilizers -- Lack of remunerative price / Information of Technology for efficient Management(-0.56)	1	1
2	Irrigation System <==> NIL	--	-	Irrigation System <==> Social Environment (-.80)	5	5
				Irrigation System <==> Lack of remunerative price (-0.59)		
				Irrigation System <==> Ability of experts scheme (-0.83)		
				Irrigation System <==> Social Status (-0.76)		
				Irrigation System <==> Work ethics & tendency & Political Stability (-0.82)		
				Irrigation System <==> Social Environment (-.80)		
3	Social Environment <==> Changing crop pattern 0.45	4	4	Social Environment <==> Nil	-	-
	Social Environment Ability of experts scheme 0.80					
	Social Environment Natural Environment / Climate condition Availability of natural resources 0.72					
	Social Environment Location of chilling center / Scope of energy conservation 0.78					
4	Development of Communication method/ Transport = Nil	--	-	Development of Communication method/ Transport = Nil	-	-
5	Changing crop pattern = Ability of experts scheme 0.69	3	3	Changing crop pattern = Nil	-	-
	Changing crop pattern = Natural Environment / Climate condition Availability of natural resources 0.60					
	Changing crop pattern = Location of chilling center / Scope of energy conservation 0.64					

6	Lack of remunerative price / Information of Technology for efficient Management= Nil			Lack of remunerative price / Information of Technology for efficient Management= Nil	-	-
7	Ability of experts scheme= Natural Environment / Climate condition Availability of natural resources 0.81	2	2	Ability of experts scheme= Nil	-	-
	Ability of experts scheme = Location of chilling center / Scope of energy conservation 0.82					
8	Social Status = Nil	-	-	Social Status = Nil	-	-
9	Absence san due to social function = Nil	-	-	Absence san due to social function = Physical Capability of the employee in the area (-1)	1	1
10	Work ethics & tendency & Political Stability = Nil	-	-	Work ethics & tendency & Political Stability = Nil	-	-
11	Government Policy = Nil	-	-	Government Policy = Government Policy = Physical Capability of the employee in the area (-1)	1	1
12	Natural Environment / Climate condition Availability of natural resources = Location of chilling center / Scope of energy conservation 0.72	1	1	Natural Environment / Climate condition Availability of natural resources = Physical Capability of the employee in the area (-1)	1	1
13	Physical Capability of the employee in the area = (Nil)	--	--	Physical Capability of the employee in the area Location of chilling center / Scope of energy conservation (-1)	1	1
14	Location of chilling center / Scope of energy conservation = Nil	--	--	Location of chilling center / Scope of energy conservation = Physical Capability of the employee in the area (-1)	1	1

Sr No	Negative co Relation uncontrolled farmers	No of Factor Related	Degree of dominant for uncontrolled farmers	Positive co Relation controlled farmers	No of Factor Related	Degree of dominant for controlled farmers
1	Seeds / Fertilizers -Nil	-	-	Seeds / Fertilizers	--	--
2	Irrigation System <==> NIL	--	-	Irrigation System <==> Nil	-	-
3	Social Enviroment <==> Lack of remunerative price / (-0.45)	3	3	Social Enviroment <==> Work ethics & tendency & Political Stability 0.72	1	1
	Social Enviroment <==> Absence san due to social function (-0.46)				--	--
	Social Enviroment <==> Government Policy (-0.51)				--	--
4	Development of Communication method/ Transport = Nil	--	-	Development of Communication method/ Transport = Nil		
5	Changing crop pattern = Government Policy (-0.58)	1	1	Changing crop pattern = Nil	3	3
6	Lack of remunerative price / Information of Technology for efficient Management= Nil	---	-	Lack of remunerative price / Information of Technology for efficient Management= Ability of experts scheme		
				Lack of remunerative price / Information of Technology for efficient Management = Social Status		
				Lack of remunerative price / Information of Technology for efficient Management = Work ethics & tendency & Political Stability		
7	Ability of experts scheme= Government Policy	1	1	Ability of experts scheme= Social Status	2	2
				Ability of experts scheme = Work ethics & tendency & Political Stability		
8	Social Status = Nil	-	-	Social Status = Nil	--	--
9	Absence san due to social function = Nil	-	-	Absence san due to social function = Government Policy	3	3

									Absence san due to social function = Natural Environment / Climate condition Availability of natural resources				
									Absence san due to social function = Location of chilling center / Scope of energy conservation				
10	Work ethics & tendency & Political Stability = Nil			-		-			Work ethics & tendency & Political Stability = Nil	-			-
11	Government Policy = Natural Environment / Climate condition Availability of natural resources (-0.68)			2		2			Government Policy = Natural Environment / Climate condition Availability of natural resources	2			2
	Government Policy = Location of chilling center / Scope of energy conservation (-0.70)								Government Policy = Location of chilling center / Scope of energy conservation	2			2
12	Natural Environment / Climate condition Availability of natural resources = Nil			-		-			Natural Environment / Climate condition Availability of natural resources = Location of chilling center / Scope of energy conservation	1			1
13	Physical Capability of the employee in the area = (Nil)			--		--			Physical Capability of the employee in the area = (Nil)	--			--
14	Location of chilling center / Scope of energy conservation = Nil			--		--			Location of chilling center / Scope of energy conservation = Nil	-			--

Seeds / Fertilizers	Irrigation System	Social Environment	Development of Communication method/ Transport	Changing crop pattern	Lack of remunerative price / Information of Technology for efficient Management	Ability of experts scheme	Social Status	Absence san due to social function	Work ethics & tendency & Political Stability	Government Policy	Natural Environment / Climate condition Availability of natural resources	Physical Capability of the employee in the area	Location of chilling center / Scope of energy conservation
1	2	3	4	5	6	7	8	9	10	11	12	13	14



CONCLUSION:

1. Social Environment to Natural Environment / Climate condition Availability of natural resources & Location of chilling

center / Scope of energy conservation thus as Social Environment ability of expert scheme increases Natural Environment / Climate condition Availability of natural resources, Location of chilling center / Scope of energy conservation, Changing crop pattern increases.

2. Changing Crop pattern is related to Ability of experts scheme, Natural Environment / Climate condition Availability of natural resources, Location of chilling center / Scope of energy conservation, Social Environment. It means that Social Environment and changing crop pattern are co-related these two factors can be treated on one banner.
3. Irrigation System & Seeds /Fertilizers are co-related
4. Thus distressed depend mainly on irrigation system, Social Environment, Lack of remunerative price / Information of Technology for efficient Management, Natural Environment / Climate condition Availability of natural resources, Ability of experts scheme, Location of chilling center / Scope of energy conservation, Physical Capability of the employee in the area.
5. For Control farmers Social Environment and Work ethics & tendency & Political Stability are related Lack of remunerative price / Information of Technology for efficient Management Social Status are related Ability of experts scheme, Social Status Work ethics & tendency & Political Stability are related.
6. Absence due to social function and Government Policy, Natural Environment / Climate condition Availability of natural resources, Location of chilling center / Scope of energy conservation are related.
7. Government Policy is related to Natural Environment / Climate condition Availability of natural resources it is also related to Location of chilling center / Scope of energy conservation.
8. (11 & 12) is related (12 & 14) & (11 & 14) it means that 11 and 12

can be considered in one banner. If we write table for comparative study positive co-relation of distressed for and negative correlation for controlled farmers we observed that no one factor is common i.e. 1 related to 2 for positive correlation distressed farmer and 1 related to 2 for controlled farmer such a situation does not arise at the same time if we considered negative correlation for uncontrolled group and positive correlation for controlled group i.e. last table we observed that 11 is related to 12 in both and 11 i.e. Government Policy related to 14 i.e. Location of chilling center / Scope of energy conservation.

References

- 1) Report of Jananadolan Sameeti, Yavatmal District year.
- 2) Late Vasantrao Naik Sheti Swavlamban Mission District, Yavatmal.
- 3) List of farmers Suicide obtained from District collector office (special Suicide Department).
- 4) Dr. Gyanmudra- "Farmers Suicide in INDIA"- Dynamics and Strategies of prevention-
- 5) Syed Akbar (2004) "The Grim reapers' harvest deccn Chronical, October 10th 2004.
- 6) Jayati Ghosh (2004) "Report of the commission on Farmers" Welfare, Government of Andhra Pradesh" www.Macroscan.net/polapr05.pdf.
- 7) Justice P.A. Chowdhary commission Report (2002), on Agriculture in Andhra Pradesh, Goap Ministry of Agriculture.
- 8) Assadi M "Farmers Suicides " Sign of Distress in Rural Economy". Economics and political weekly, 4 April 1998.
- 9) Bhalla G S and Tyagi G. S. "Patterns in Indian Agricultural Development A District Level Study" Institute for studies in Industrial Development, New Delhi.
- 10) Deshpande R. S. : Suicide by farmers in Karanataka : Agrarian distress and possible alleviatory steps "Economic and political Weekly, 37(26) June 29, 2002.
- 11) Mohan Rao R. M. : Suicides among Farmers : A Study of Cotton Grower, (concept Publishing Co., New Delhi, 2004.
- 12) Parthasarthy G. and Shameen "Suicides of Cotton Farmers in Andhra Pradesh : An Exparatoy study", Economic and political Weekly, 33(13) March 28, 1998.
- 13) Vidyasagar R. and Suman Chandra K. Farmers Suicides in Andhra Pradesh and Karantaka, report of Nataional Institute of Rural Development, Hyderabad, 2004.