

A correlation analysis and socio-economic attributes among maize growers of Surguja district of Chhattisgarh

ABSTRACT

The present study was ~~carried out in the~~ conducted in Surguja district of Chhattisgarh state. Data ~~were as~~ collected from 120 respondents from 8 selected villages. In this study, ~~the~~ necessary statistical tools and techniques were adopted. Most of the respondents ~~had belonged to the~~ middle age group, ~~scheduled had a tribal~~ category, ~~had different~~ levels of education ~~varies~~ from primary to ~~grahigher educateion~~ level, ~~were~~ small size ~~and and~~ had a joint family system, ~~invotwere~~ engaged in agriculture with labour ~~occupatation,activity,~~ had an annual income and ~~also~~ the contribution of maize ~~into~~ their ~~as~~ Annual income was ~~also~~ medium level, medium category of landholding ~~ownership,~~ a large category of the ~~area under the maize crop,~~ ~~maizefor corn~~ cultivation, ~~corn~~ was the main crop ~~in both seasons for commercial purposes in both seasons,~~ productivity was medium level, low ~~level of~~ experience in ~~maizecorn~~ cultivation, ~~the~~ majority of respondents consumed ~~Maize~~ as flour/bread, ~~cornmaize~~ and animal/poultry feed, the maximum number of respondents ~~hadwere~~ membership ~~in~~ of two or more organizations, while the overall social participation level of the respondents was moderate, Progressive farmers, Krishi Sangwari and RAEOs were observed as effective sources of information among maize ~~growfarmers.majority~~ Most of the ~~maizecorn~~ growers had tubewells as irrigation resources for ~~maizecorn~~ cultivation, the majority of ~~the~~ respondents ~~were found in~~ had medium to a high level of knowledge about ~~maizeof the practice of corn~~ cultivation ~~practice,~~ and their overall knowledge ~~meanaverage~~ score was 79.49 percent, ~~the~~ majority of ~~the~~ respondents had all types of inputs that were regularly available in their locality, ~~The~~ majority of the respondents sold the ~~producets~~ to local/outside traders, ~~cent-external dealers~~ on inputs that were regularly available in their region and one per cent of the respondents adopted/~~choseselected~~ the marketing channel as Producer-traders/distributor-wholesaler-retailer-consumer for their grain ~~producets~~ and majority of ~~the~~ respondents ~~di~~ had not have storage practice, ~~due tos~~ as they sold their ~~producets~~ after harvesting. ~~The f.~~ Family size, occupation, annual income, land ~~holding,~~ area ~~under~~ ~~maize~~ ownership, maize acreage, productivity, farming experience, and knowledge of maize production technology and marketing were found to be positively and highly significantly correlated with the extent of adoption at 0.01 level of probability, ~~a probability level of 0.01.~~ Other variables ~~likesuch as~~ education and ~~source of irrigation~~ ~~source~~ were found to be positive and

significantly correlated with the extent of adoption at 0.05 level of probability and a probability level of 0.05. The remaining variables as such as contribution of maize to their annual income, consumption patterns, social participation, contact with extension agency contacts, input availability and storage were not significant.

Keywords: Socio-economic, respondents, Kisanmitra, practice extension agencies

1. Introduction

Maize is India's third most important food crop after rice and wheat. According to an advance preliminary estimate, it is cultivated on 9.86 m (million hectares) (Directorate of Economics and Statistics, DA&FW 2021). In India, maize is used as human food (23%), poultry feed (51%), animal feed (12%), industrial (starch) products (starch) (12%), beverages and seeds (1% each). In the state of Chhattisgarh, maize is the second most important crop after rice for the food grain production of food grains. In Chhattisgarh, 71.75 million hectares of land is used to cultivate maize in Chhattisgarh for maize cultivation, producing 134.16 million tonnes of grain with a productivity of 1886 kg/ha. In CG, there is an annual CG receives an average of 1200–1400 mm of rainfall annually. In addition to a 137 per cent cropping intensity, harvest intensity of 137 percent.

Chhattisgarh has three distinct agro-climatic zones, each with enormous potential for agricultural development. The climates of the two northern hills and the Bastar Plateau are the most suitable for growing maize crops out of maize cultivation in these three zones. Northern Hills; includes the districts of Surguja, Surajpur, Balrampur, Korea, Jashpur, Raigarh and Dharamjaigarh Tehsil districts of Raigarh. Surguja district is the leading maize-growing district of the state. The state has very good maize potential for maize but the productivity is very low due to the cultivation of open-pollinated varieties (OPVs), improper input management practices and ignorance of the improved maize technology of maize as well as some constraints and barrier and some limitations and obstacles. The real true potential can be realized and obtained by the adoption of exploited by introducing hybrid maize with a full comprehensive package of practices. In this context, the present study was undertaken of study conducted to examine the socio-economic profiles of maize growers of the farmers in Surguja district of Chhattisgarh.

2. Material and methods

The study was carried out in the Surguja district of Chhattisgarh State and Ambikapur block was randomly selected under the Surguja district and a total of 120 farmers were randomly selected from the 8 selected villages

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i.e. Khaliba, Thakurpur, Bakirma, Barsedi, Mendra Khurd, Sukhari, Sarganwa and Parsa. Thus, 120 respondents were finally selected and collected the data with the help of a well-developed structured interview schedule.

3. 3- Results and discussion

The Socio personal and socio-economic attributes of maize growers has been examined and presented in Table -1:

Age: The highest number of respondents (42.50%) belonged to the middle age group followed by the young age group (30.00%) and the remaining 27.50 per cent were in the old age group respectively. **Caste:** The analysis has examined the impact of caste. The highest number of respondents (52.50 %) were scheduled tribe category, followed by General 25.00 and other backward castes 22.50 per cent. **Education:** The highest number of respondents belonged to the primary school category which is 30.00 per cent followed by 16.67 per cent belonging to the illiterate category whereas 15.83 per cent of respondents belonged to the Higher Secondary category. About 14.17 per cent had Middle school and high school categories and the remaining 9.16 per cent of the respondents had college and above level of education. **Size of family:** 46.67 per cent of respondents had up to 5 members of the family followed by 37.50 per cent belonging to 6 to 10 members of the family and the remaining 15.83 per cent of them had the above 11 members of the family. **Occupation:** The data revealed that 43.33 per cent of the respondents were involved in agriculture work with labour followed by 25.83 per cent involved in only agriculture, agriculture with business 13.33 per cent and agriculture with animal husbandry 12.50 per cent. About 05.00 per cent of respondents were involved in agriculture with service.

Social Participation: In the table observe, it was found that the maximum number was 50.83 percent of the respondents had who were membership in of two or more organizations, followed by 33.33 percent of the respondents who had were membership in of one organization. About 9.17 percent of the respondents were not a member affiliated with any organization and the remaining 5.83 percent of the respondents belonged to office bearers. Table depict public officials. The table shows the level of social participation; 84.17 percent of the respondents belonged to a medium level, followed by 9.16 percent from to a low level and the remaining 6.67 percent belonged to a high level of social participation. **Extension agencies contact:** The person is will likely to consult a selection of sources to learn about the best ways to cultivate maize. Table 1 indicates the mean score and respondents' order of priority for several extension agencies regarding suggested maize crop cultivation methods for growing corn. Table 1 shows the average score and priority order of respondents for several extension agencies on recommended corn growing practices. The table illustrates the preferences of respondents for information seeking preferences. Among all sources of information sources, Progressive Farmer ranked 1st with a 2.15 highest mean score average score of 2.15, followed by Kisan Mitra ranked 2nd with a 2.14 mean score, RAEO ranked 3rd with a 2.13 mean score and Research Scientists ranked 4th with a 1.88 mean score. Private companies ranked 5th with a 1.80 mean score, KVK scientists ranked 6th with a 1.79 mean score with an average score of 2.14 in 2nd place, RAEO with an average score of 2.13 in 3rd position and Research

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Scientists with an average score of 1.88 in 4th place. Private companies took 5th place with an average value of 1.80, KVK scientists with an average value of 1.79 6th place, ADO 7th with ranked with a 1.43 Mean score and BTM ranked 8th with a 1.10 mean score. Thus, average value of 1.13 in 7th place and BTM with an average value of 1.10 in 8th place. It can be concluded that Progressive farmers Progressive Farmer and Kisan Mitra were ~~be~~ considered as effective sources of information among maize growers.

Annual income: An annual income helps projects ~~ever~~ improve their economic ~~posi~~ situation and is an indicator of economic stability. The distribution of ~~the~~ respondents according to their annual income is ~~presented~~ shown in Table:2. The lowest average annual income was ~~found to be~~ Rs. 44571, of which Rs.26282 ~~had~~ contributed to the average annual income from maize ~~where~~, the percentage share ~~was being~~ 59 percent, which was the highest ~~shared to~~ obtained.

Landholding: ~~It is evident~~ This can be seen from Table 3. ~~The highest number of~~ Most of the respondents belonged to the category of ~~medium landholding-sized landowners~~, i.e., 39.16 percent, followed by 29.16 percent of respondents ~~under in~~ the small category. About 18.33 percent ~~of the respondents~~ had marginal land ~~holding ownership~~ and the remaining 13.13 percent of ~~the respondents~~ belonged to ~~a large category of land holding~~. The overall ~~major land ownership category~~. The average total landholding of ~~the respondents~~ was ~~to be found~~ 2.45 ha. Thus, it can be concluded from the table that maximum maize growers belong to a medium category of landholding in the study area.

Area under maize crop: The table explains that the maximum number of respondents came under more than 2.0 ha which is 42.50 per cent followed by 25.84 per cent from the 1.0 to 2.0 ha category. About 31.66 per cent of respondents belonged to less than 1 ha category of the area under maize crop. Thus, it can be concluded that the maximum number of respondents was more than the 2.0 ha category of the area under the maize crop. The average grass maize cropped area per family was calculated as 1.76 ha. **Productivity:** Table 3 revealed that out of the total respondents, the maximum respondents 47.50 per cent had 40 to 50 qt/ha productivity followed by 32.50 per cent had more than 50 qt/ha productivity and 20 per cent of respondents had less than 40 qt/ha productivity of maize crops. The total production of 120 respondents in 210.69 ha of total maize cropped area in both wet and dry seasons was 84450t. and productivity was 46.14 qtl/ha observed. **Source of Irrigation:** Table 3, revealed that 85.83 per cent of the maize growers had tube wells as the main source of irrigation, followed by 5.83 per cent had wells, 5.01 per cent of the respondents had ponds and the remaining 3.33 per cent had canals as irrigation resources. Thus, ~~it can be concluded that the majority of the maize growers had~~ tube well ~~was~~ irrigation resources for maize cultivation.

Input availability: Input availability was operationally defined as the degree of availability of different inputs used by the maize growers for the cultivation of their maize crop. Table 3, shows the preferences of respondents for input availability. Among all sources of FYM, Seed, Nitrogenous, Phosphoric, potassic, insecticide, weedicide and fungicide. Seed ranked 1st with 2.92 highest mean score followed by insecticide ranked 2nd with a 2.90 mean score, FYM ranked 3rd with a 2.83 mean score, weedicide

ranked 4th with a 2.81 mean score, Potassic ranked 5th with a 2.78 mean score, Phosphoric ranked 6th with a 2.69 mean score, Nitrogenous 7th ranked with a 2.50 Mean score and lowest ranked 8th was Fungicide with a 2.10 mean score. Thus, it can be concluded from a study that the majority of respondents had all types of inputs that were regularly available in their locality.

Major crops and their area among the respondents: Table 4. contains information about respondents who cultivate various crops as well as their cropped areas. The results showed that all of the respondents were farming maize and paddy. Approximately 48.47 per cent of the net cropped area during the wet season was under maize cultivation, followed by 42.79 per cent of the cropped area under paddy cultivation and the remaining 8.74 per cent was occupied by ground nut, black gram, pigeon pea and vegetable to the overall cultivated area of the kharif season. During the dry season, it was found that the farmers were cultivating maize in 56.53 per cent of the net cultivated area which was cultivated by 63.33 per cent of total respondents followed by 18.33 per cent of ~~respondents~~ respondent's potato cultivation in 21.58 per cent area, 20 per cent of respondents practising wheat cultivation with 18.24 per cent of the area. Onion and pea accounted for 14.40 and 13.53 per cent of the cultivated area, cultivated by 21.67 and 23.33 per cent respondents respectively followed by 13.33 per cent of respondents cultivated mustard with 7.18 per cent of the net cultivated area, 30 per cent of respondents cultivated cabbage with 5.27 per cent of net cultivated area. About 20.83, 22.50, 15 per cent of respondents were adopting cauliflower, leafy vegetables and ginger/garlic with 4.68, 2.97 and 2.23 per cent of net cultivated area respectively. Based on the above findings, it may be concluded that maize was the main crop during the wet and dry seasons for commercial purposes.

consumption pattern of maize crop: Table 5 shows that the majority (97.50%) of respondents had consumed flour/bread followed by corn, animal /poultry feed, popcorn and boiled grain with their percentages observed as 95.83, 61.67, 47.50 and 40.00 respectively. It can be concluded that the majority of respondents consumed maize as flour/ bread followed by corn and animal/poultry feed for their domestic use.

The relationship between the extent of adoption and the socioeconomic attributes of maize growers.

-Correlation analysis:-

The correlation coefficient between the selected characteristics of the respondents and with adoption of recommended maize production technology among maize growers was also worked out and the values of the correlation coefficient are presented in Table 6. It can be seen from the table that out of all selected characteristics viz. family size, occupation, annual income, land holding, area under maize, productivity, farming experience, knowledge of maize production technology and marketing were found to be positive and highly significant correlated with adoption at 0.01 level of probability. Whereas, the variables like education and source of irrigation were found to be positively and significantly correlated with the adopted 0.05 level of significance. The other variable contribution of maize to their annual income, Consumption

pattern, social participation, Extension agencies contact, Input availability and Storage showed a nonsignificant correlation with the extent of adoption of recommended maize production technology.

4. 4. Conclusions

In this study, it was concluded that the socio-economic profile of the maize growers respondents found that most of surveyed revealed that the majority of the respondents belonged to the middle age group, the scheduled tribe category, including up to primary school level of education, as well as education as a small size of family and their occupational involvement in the Agriculture with labourers. The majority of respondents had an average annual income of 280383, whereas, mostly shared the contribution of maize to their annual income. The maximum largely shared. The largest number of the respondents belonged to a medium middle category of land holding ownership and had a large category of the area land under the maize crop cultivation. Productivity had a medium category with experience in maize corn cultivation. The majority of respondents consumed maize corn as flour/bread. The maximum number of respondents had membership in of two or more organizations, while the overall social participation while the overall social participation level of the respondents was moderate. the maize corn growers housed tubewells as their main source of irrigation. It may be concluded that out of the total 17 variables, six variables were found to be non-significant, two variables were found to be significant at 0.05 per cent level of probability a probability level of 0.05 percent and the remaining nine variables were found to be highly significant at 0.01 per cent level of probability. a probability level of 0.01 percent.

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5. References:

- Bawa, D.B. & Ani, A.O.(2014). Analysis of Adoption of Improved Maize Production Technology among Farmers in Southern Borno, Nigeria. *Research on Humanities and Social Sciences*, 4(25): 137-141.
- Darandale, A.D.&Soni, N.V.(2011). Relationship between Attitude of Tribal Maize Growers Towards Organic Farming and Their Selected Characteristics. *Gujarat Journal of Extension Education*, 22: 89.
- Kumari, Sunita, Sharma, F.L& Nidhi(2017). Study of profile characteristics of wheat and maize growers in Udaipur District of Rajasthan. *IMPACT: International Jour. of Research in Applied, Natural and Social Sciences*, 5(2): 1-12.
- Lamichhane, J., Timsina, K., Rana Bhat D.&Adhikari, S.(2015). Technology adoption analysis of improved maize technology in western hills of Nepal. *Journal of Maize Research and Development*, 1(1): 146-152.
- Sinha, S.K., Sinha, A.K., Thakur, Dinesh., Lakra, Akhilesh, Tripathi& Arun Kumar (2019). Maize Research in Chhattisgarh: Status and Progress, *International Journal of Current Microbiology and Applied Sciences* ISSN: 2319-7706 Volume 8 Number 03.

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Table: 1. Socio-personal and socio-economic attributes of respondents.

SI. No.	Particular	Frequency	Percentage
1.	Age		
	Up to 35 years	35	30.00
	36 to 55 years	51	42.50
	Above 55 years	33	27.50
2.	Caste		
	Scheduled tribes	63	52.50
	Scheduled cast	0	0.00
	Other backward Caste	27	22.50

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	General	30	25.00
3.	Education		
	Illiterate	20	16.67
	Primary school	36	30.00
	Middle school	17	14.17
	High school	17	14.17
	Higher secondary	19	15.83
	Graduate and above	11	9.16
4.	Family size		
	Up to 5 members	56	46.67
	6 to 10 members	45	37.50
	Above 11 members	19	15.83
5.	Family type		
	Joint family	64	54.16
	Nuclear	56	46.66
6.	Occupation		
	Agriculture	31	25.84
	Agriculture + Labour	52	43.33
	Agriculture + Service	6	05.00
	Agriculture + Animal Husbandry	15	12.50
	Agriculture + Business	16	13.33
7.	Social Participation		
	No participation	11	9.17
	Member of one organization	40	33.33
	Member of two or more organization	61	50.83
	Office bearer	8	6.67
8.	Social Participation Level	Frequency	Percentage
	Low (Up to 1.8)	11	9.16
	Medium (1.9 – 3.2)	101	84.17
	High (3.2 and above)	8	6.67
9.	Extension agencies contact	Mean score	Rank
	RAEO	2.13	III
	ADO	1.13	VII
	Research Scientists	1.88	IV
	BTM	1.10	VIII
	KVK Scientists	1.79	VI
	Kisanmitra	2.14	II
	Private company	1.80	V
	Progressive farmer	2.15	I
10.	Farming experience		

Up to 10 years	71	59.16
11 to 20 years	28	23.33
above 21 years	21	17.5

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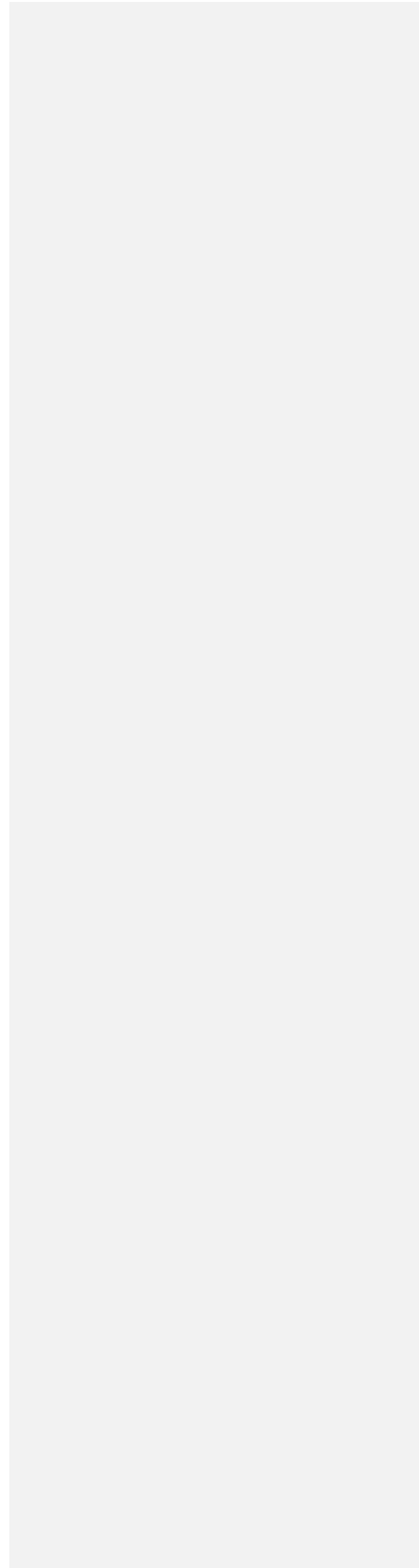


Table:2. Distribution of respondents according to their annual income

SI. No.	Category	F	%	Average annual income	Average annual income from Maize	Percentage Share of Maize on Total annual income
1.	Up to Rs. 60,000	7	5.83	44571.0	26282	59
2.	Rs. 60,000 to 1,20,000	14	11.67	92785.0	48372	52
3.	Rs 1,20,000 to 2,40,000	30	25.00	178233.0	66240	37
4.	Rs. 2,40,000 to 5,00000	61	50.83	361328.0	102082	28
5.	More than Rs. 5,00000	8	6.67	725000	181203	25

Overall average annual income = 280383.0
Average annual income from maize = 84836.0

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Table:3. Distribution of respondents according to their size of land holding, area under maize crop, productivity of maize, source of irrigation and inputs availability in their locality.

SI. No.	Category	Frequency	Percentage
1.	Landholding		
	Marginal farmer (up to 1 ha)	22	18.33
	Small farmer (1.01 to 2 ha)	35	29.16
	Medium farmer (2.01 to 4 ha)	47	39.16
	Large farmer (above 4 ha)	16	13.33
	Average: 2.45 Landholding		
2.	Area under maize crop		
	< 1.0 ha	38	31.66
	1.0 to 2.0 ha	31	25.84
	> 2.0 ha	51	42.50
3.	Productivity		
	< 40 (qt/ha)	24	20.00
	40-50 (qt/ha)	57	47.50

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	>50 (qt/ha)	39	32.50
	Total production (qtl.) = 8445		
	Total maize area (ha) = 210.69 ha		
	Average Productivity (q/ha.) = 40.34		
4.	Source of Irrigation	Frequency	Percentage
	Tube-well	103	85.83
	Pond	6	5.01
	Well	7	5.83
	Canal	4	3.33
5.	Inputs availability	Mean score	Rank order
	Seed	3.00	I
	FYM	2.83	III
	N fertilize	2.50	VII
	P fertilizer	2.69	VI
	K fertilizer	2.78	V
	Insecticide	2.90	II
	Herbicide	2.81	IV
	Fungicide	2.10	VIII

Table 4: Distribution of respondents according to their area under different crops grown in dry and wet seasons

S.no.	Season/crops	F	%	Area (ha)	%
1	Wet season				
	Maize	120	100.00	142.86	48.47
	Paddy	120	100.00	126.11	42.79
	Black gram	24	20.00	5.37	1.82
	Groundnut	35	29.17	11.84	4.01
	Pigeon pea/vegetables	18	15.00	8.56	2.90
Total				294.74	
2	Dry Season				
	Maize	76	63.33	67.83	56.53
	Cauliflower	25	20.83	5.62	4.68
	Cabbage	36	30.00	6.32	5.27
	Mustard	16	13.33	8.62	7.18
	Potato	22	18.33	25.89	21.58
	Pea	28	23.33	16.24	13.53
	Wheat	24	20.00	21.89	18.24
	Garlic/Ginger	18	15.00	2.67	2.23
	Onion	26	21.67	17.28	14.40
	Leafy veg.	27	22.50	3.56	2.97
Total				175.92	

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Cropping Intensity (%) = 159.68

Table 5: Distribution of respondents according to their Domestic form of consumption pattern of maize crop.

Sl. No.	Product	frequency	Percentage
1.	Corn	115	95.83
2.	Popcorn	57	47.50
3.	Flour/bread	117	97.50
4.	Boiled grain	48	40.00
5.	Animal / Poultry feed	74	61.67

Table No. 6 Correlation analysis of independent variables with adoption of recommended management practices of maize.

Sl.No.	Independent variable	Coefficient of correlation
		"r" value
		Adoption
1.	Education	0.181 *
2.	Family size	0.235 **
3.	Occupation	0.322 **
4.	Annual income	0.317 **
5.	Contribution of maize to their annual income	0.068 NS
6.	Land holding	0.283 **
7.	Area under maize	0.224 **
8.	Productivity	0.277 **
9.	Farming experience	0.237 **
10.	Consumption pattern	0.120 NS
11.	Social participation	0.122 NS
12.	Extension agencies contact	-0.096 NS
13.	Source of irrigation	0.182 *
14.	Knowledge of maize production technology	0.377**
15.	Input availability	0.106 NS
16.	Marketing	0.241 **
17.	Storage	0.050 NS

significant at the 0.01 level

Verdict:

*Correlation is significant at the 0.05 level, *Correlation is

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- 1) The introduction is weak. No citations and lacks logical flow from the global to the local scale with the need for the study.
- 2) The methodology is weak, no clear research design, tools, methods, etc.
- 3) Results seems good but lacks proper arrangements.
- 4) NO DISCUSSION OF THE FINDINGS, WHY?
- 5) RESULTS NOT IN LINE WITH THE STUDY GOAL. CORRELATION IS WRONG/WEAK. IT NEEDS TO BE RE-WORKED ON IN FIGURE FORM.
- 6) No new knowledge generated.

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