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Demographic Profile of Cauliflower Growers in Hardoi District of Uttar Pradesh

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Abstract
The present paper attempts to examine the demographic profile of cauliflower growers in the Hardoi district of Uttar Pradesh, India. The study was conducted in 10 villages with a random selection of 120 respondents. The findings showed (43.33%) of respondents aged between 35-50 years, earning Rs.80000-120000 (32.50%) annually, had marginal landholding (38.33%), and (74.17%) of the cauliflower growers were literate. Concerning farming, 75% of respondents have reported agriculture and allied activities as their main occupation, the maximum no of respondents (44.17%) had pakka houses, (48.20%) were medium family size (5-7members) and (68.45%) were nuclear family type.

Keywords: Landholding, Occupation, Family, Cauliflower etc.

Introduction

Agriculture forms the backbone of India's economy, contributing approximately 18.8% to the national income (2021-22). Around 60% of the population relies on agriculture for their livelihood, either directly or indirectly. Many industries, including jute, textiles, edible oils, tobacco, and sugar, depend on agricultural raw materials. India ranks second globally in fruit and vegetable production, after China.

Cauliflower *(Brassica oleracea* L. var. botrytis) is a member of the Brassicaceae family. Its name combines two Latin words: "caulis" (cabbage) and "floris" (flower). The edible part, known as the "curd," is a compressed mass of undeveloped flower buds. Cauliflower is valued for its taste, flavor, and nutritional content, containing vitamins A and C, proteins, fibers, and minerals such as calcium, magnesium, phosphorus, iron, sodium, and sulfur. Believed to originate in the Mediterranean region, cauliflower was introduced to India in 1822 from England. It is now cultivated worldwide, with India being a significant producer. Major cauliflower-growing states in India include Bihar, Uttar Pradesh, Orissa, West Bengal, Assam, Haryana, and Maharashtra. Uttar Pradesh ranks 9th in cauliflower production among Indian states, with an area of 20,000 hectares under cultivation and a production of 436.77 MT (as of 2017-18). Vegetables, including cauliflower, play a crucial role in maintaining human health by providing essential nutrients for a balanced diet. Cauliflower is particularly noteworthy for its high nutritional density and low fat content. It is a good source of dietary fiber, folate, and vitamin C, while providing only 25 kcal of energy per serving. The recommended daily vegetable intake is about 300 grams, but the current average

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availability in India is around 220.8 grams per capita per day.

Methodology:

This study was conducted in the Hardoi district of Uttar Pradesh. Five blocks were purposively selected based on the highest area and production of cauliflower. Ten villages were chosen from these blocks using simple random sampling with proportional allocation. A sample of 120 cauliflower farmers, each cultivating at least 1 bigha, was selected from these villages using simple random sampling proportional to village size. Data was collected using a pre-tested interview schedule. Analysis was performed using appropriate statistical methods, including percentages, means, and standard deviations.

Results and Discussion:

Socio-economic Characteristics:

This section describes the respondents' personal, socioeconomic, and psychological characteristics, addressing the study's first objective.

1. **Age:**

Age is an important factor influencing an individual's dynamism and experience. These attributes, in turn, affect a person's decision-making abilities and their participation in community progress.

Table 1: Age-wise distribution of the respondents

Age (in years)	Frequency	Percentage
Young (<30)	31	25.83
Middle (31-50)	52	43.33
Old (>51)	37	30.84
Total	120	100.00

Mean= 40.23, S. D. =10.44, Min. =22 Max. =63

Table 1 revealed that (43.33%) of respondents were middle age, followed by (30.84%) of old age and (25.83%) percent young age. It inferred that the majority of the respondents are 31-50 age group.

2. **Caste:** Caste is a social status in which society places an individual on the basis of his socio-economic characteristics.

Table 2: Distribution of the respondents based on their caste

Categories	Frequency	Percentage
General	19	15.83
OBC	65	54.17
SC	34	28.33
ST	2	1.67
Total	120	100

It was found that (54.17%) percent of vegetable farmers belonged to the OBC caste category, followed by SC (28.33%) and General (15.83%). Only two respondent was found from ST category.

3. **Educational attainment:** Education is widely recognized as a crucial societal element. It serves as a key mechanism through which societies socialize their members and bring about desired changes in the socio-economic conditions of their populations. The level of education can significantly influence an individual's ability to understand, adopt, and implement new ideas and technologies.

Table 3: Distribution of the respondents based on their education

Educational attainment	Frequency	Percentage
Illeterate	31	25.83
Primary school	19	15.83
Middle school	17	14.17
High school	22	18.33
Intermediate	17	14.16
Graduate	12	10
Postgraduate	2	1.67
Total	120	100

The study revealed a diverse educational background among respondents. The largest group (25.83%) were illiterate, followed closely by those who had attended high school (18.33%). The remaining respondents were distributed across various educational levels: 15.83% had completed primary school, 14.17% had attended middle school, 10% were graduates, and a small fraction (1.67%) held postgraduate degrees. This distribution suggests that while a significant portion of respondents had some level of formal education, with high school being the most common highest level attained, illiteracy remained a substantial challenge in the community. These findings align with earlier research by Devarde (1981), who found that a majority of mango growers (77.92%) had education levels ranging from primary to higher secondary.

4. **Family Size:**

Table 4: Distribution of the respondents based on their family size

Size of family	Frequency	Percentage
Small (<4)	33	27.5
Medium (5-8)	67	55.83
Large (>9)	20	16.67
Total	120	100

Mean=6.42, S. D =2.22, Min. = 2 Max. = 16

The study revealed that the majority of respondents (55.83%) had medium-sized families with 5-8 members. Smaller families of up to 4 members accounted for 27.5% of the sample, while larger families with 9 or more members represented 16.67% of respondents. The family size ranged from 2 to 16 members across the sample. These findings indicate that most respondents belonged to medium-sized family units.

5. **Family Type:** The type of family a person belongs to can significantly influence their behavior. Individuals from nuclear families might exhibit different behaviors compared to those from joint families.

Table 5: Distribution of the respondents based on their family type

Family type	Frequency	Percentage
Nuclear	71	59.17
Joint	49	40.83
Total	120	100

The distribution of respondents by family type reveals that a majority, 59.17%, belong to nuclear families, while 40.83% belong to joint families. These results align with Ninga Reddy's (2005) findings, which reported that 62.67% of beneficiaries were from nuclear families, compared to 37.33% from joint families. This data indicates that most respondents come from nuclear families.

6. Housing Pattern:

Table 6: Distribution of the respondents based on their housing pattern

Housing pattern	Frequency	Percentage
Mix	53	44.17
Kutcha	24	20
Hut	2	1.67
Pakka	41	34.16
Total	120	100

The data in Table 6 regarding house possession types reveals that 44.17% of respondents lived in mixed-type houses, 34.16% in pukka houses, 20.00% in kutcha houses, and only 1.67% in huts. This suggests that vegetable farmers generally had better quality housing, likely due to their favorable socio-economic conditions resulting from successful vegetable production. This also reflects the social status of vegetable farmers in the study area.

7. Land Holding: Land holding is a crucial indicator of a family's socio-economic status, as the size of the land holding is closely linked to the household's income and standard of living.

Table 7: Distribution of the respondents based on their land holding:

Landholding	Frequency	Percentage
Marginal (<1hac.)	58	48.33
Small (1-2hac)	35	29.16
Submedium (2-4 hac)	13	10.83
Medium (4-10hac)	10	8.33
Large (>10hac)	4	3.33
Total	120	100

The study indicates that 48.33% of farmers owned less than 1 hectare of land, classifying them as marginal farmers. Meanwhile, 29.16% of farmers fell into the small category, and 10.83% were medium farmers. Only 3.33% of vegetable farmers had large land holdings. This suggests that the majority of vegetable farmers were marginal farmers with less than 1 hectare of land. This trend may be attributed to the relatively low per capita agrarian land in central Uttar Pradesh and the fragmentation of land holdings resulting from the prevalence of nuclear families.

8. Occupation:

Table 8: Distribution of the respondents based on their occupation

Occupation	Frequency	Percentage
Farming	47	39.17
Farming+Animal husbandry	43	35.83
Government service	3	2.5
Others	27	22.5
Total	120	100

The distribution of respondents shown in Table 8 reveals that 39.17% primarily engaged in farming, 35.83% combined farming with animal husbandry, 22.5% were involved in other occupations, and 2.5% worked in government services. This indicates that the majority of respondents relied on farming as their main source of income. Therefore, it can be concluded that most respondents were primarily farmers.

9. Annual Income: Income significantly influences decision-making, the adoption of new ideas, and participation in economic activities for an individual.

Table 9: Distribution of the respondents based on annual income

Income status (Rs)	Frequency	Percentage
Up to 40000	24	20.00
40000-80000	33	27.50
80000-120000	39	32.50
More than 120000	24	20.00
Total	120	100

Table 9 indicates that 32.5% of respondents earned between Rs. 80,000 and Rs. 120,000 annually. This was followed by 27.5% earning between Rs. 40,000 and Rs. 80,000, 20% earning more than Rs. 120,000, and another 20% earning up to Rs. 40,000. These figures suggest that the majority of respondents are living at or below the poverty line.

10. Decision Making Ability:

Table 10: Distribution of respondents according to their decision-making ability

Category	Frequency	Percentage
Individual decision	33	27.5
Joint decision with family members	58	48.33
Joint decisions with other than family members	29	24.17
Total	120	100

Table 10 shows that nearly half of the respondents (48.33%) made joint decisions after consulting with family members. This is followed by 27.50% who made individual decisions, and 24.17% who made joint decisions with individuals other than family members.

Conclusion

Based on the study's findings, it can be concluded that

most respondents had medium socio-economic backgrounds and information management behavior levels, correlated with their annual income. Factors positively influencing individual information management behavior included educational level, annual income, occupation, and market orientation. The majority of respondents showed readiness to adopt new technological innovations to boost production, demonstrated by their medium adoption levels. However, they faced challenges such as lack of awareness about skills for adopting recommended technologies, untimely availability of critical inputs, and irregular field visits by extension personnel. The study suggests that these constraints could be addressed by providing farmers with appropriate skills related to the latest recommended cauliflower production technologies, emphasizing the importance of targeted education, timely resource provision, and consistent extension services in improving technology adoption among farmers.

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