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# A study on consumer buying behavior towards Prabhu agri gold fertilizer in Bagalkot District

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## 1. Introduction

Siddapur Distilleries Limited, established in 1992 and headquartered in Bagalkot, Karnataka, has been a pioneer in sustainable industrial practices. One of its notable contributions to agriculture and environmental sustainability is the development of Prabhu Agri Gold, a high-quality organic fertilizer. This project was initiated with the core objective of addressing the twin challenges of soil degradation and chemical dependency in modern farming.Prabhu Agri Gold is made from organic by-products of the distillery process and is specifically designed to improve-soil fertility, enhance crop yield, and promote sustainable agricultural practices. Unlike chemical fertilizers, which often lead to long-term damage to soil health and ecology, Prabhu Agri Gold replenishes the soil with essential nutrients in a natural form, encourages microbial activity, and improves soil structure and moisture retention. The project supports eco-friendly agriculture by utilizing waste materials and converting them into a resourceful input for farming. This aligns with the "waste-to-wealth" principle, effectively reducing industrial pollution while offering farmers an affordable and effective alternative to synthetic fertilizers.

Widely adopted by farmers in Bagalkot and surrounding regions, Prabhu Agri Gold has proven its effectiveness in improving crop health, increasing yields, and sustaining long-term productivity. It plays significant role in organic and regenerative farming models, thus contributing to food security and environmental conservation. The initiative reflects Siddapur Distilleries' commitment not only to industrial growth but also to social responsibility, rural empowerment, and agricultural sustainability. By integrating environmental consciousness with business operations, the Prabhu Agri Gold project serves as model for-how industries can contribute to a greener and more sustainable future. Additionally, the project contributes to the empowerment of the local farming community. It provides farmers with a cost-effective and reliable alternative to expensive chemical inputs. Its growing popularity in Bagalkot and nearby taluks reflects the trust it has earned through consistent performance and results. Prabhu Agri Gold also promotes organic farming and aligns with national goals of sustainable agriculture. It supports farmers in transitioning towards healthier farming methods, which improve food quality and safety while protecting natural resources.

**Literature Review**

1. **Abdul Hadi Wasil, Jasmin Arif Shah, Shuja Mohammad Kakar, Azizul Rahman Ragashtai, Munifah Siti Amira Yusuf and Asadullah Sadat in 2014."The Influential Factors of Organic Fertilizer Adoption among Farmers"**Adoption of organic fertilizers is influenced by factors such as farmers' knowledge, attitudes, extension services, market access, education, farm size, labor availability, and information sources. Addressing these can promote sustainable agriculture and enhance food security.It aims to assess the role of economic, social, and environmental factors in shaping adoption behavior. The study also seeks to provide recommendations for promoting use of organic fertilizers among farmers. This study will provide-comprehensive understanding of primary factors that influence farmers' adoption of organic fertilizers, including economic, social, and environmental considerations.

2. **Sanjay Koushal , Annupama Devi , Jaydeep Panda, Samreen , Johnson Lakra , Chandan Kumar Panigrahi , Nagarjuna S , R. Wongamthing and Bhim Singh 2021**."**The Role and Future Potential of Bio Fertilizers in Indian Agriculture Bio fertilizers offer sustainable benefits over chemical fertilizers in India**" However, challenges like limited awareness, quality concerns, financial constraints, and infrastructural issues hinder their widespread adoption. Addressing these through education, quality control, financial support, and infrastructure development is essential for sustainable agriculture.To explore the role of bio fertilizers in Indian agriculture and assess their future-potential for enhancing soil health, crop productivity, and sustainable farming practices, It also aims to evaluate future potential of bio fertilizers in promoting sustainable farming practices and reducing dependency on chemical inputs. This study will provide-insights into the effectiveness of bio fertilizers in improving soil health, enhancing-crop productivity, and supporting sustainable agricultural practices in India.

3. **D. V. Ladumor, R. S. Pundir and Alvira Rajwadi in 2013, "Farmers Purchasing Behaviour and Satisfaction towards Fertilizer in Kheda District"** Studies on Indian paddy farmers' fertilizer purchasing behavior reveal that quality, past experiences, price, and dealer recommendations significantly influence decisions. While chemical fertilizers are predominantly used, there is growing interest in organic alternatives, though challenges like perceived inefficiency and limited knowledge hinder widespread adoption. To analyze the purchasing behavior of farmers towards fertilizers in Kheda District, focusing on factors influencing their choice of fertilizer brands and types. It also aims to assess the level of farmer satisfaction with the fertilizers. understanding of the factors that drive farmers' purchasing decisions regarding fertilizers in Kheda District, such as price, quality, and brand loyalty. It will also highlight the level of satisfaction among farmers.

4. **Anand Bihari, Mukesh Kumar Maurya and Chirag B. Channe in 2017, "Study on Consumer's Perception of Ampligo (Syngenta) Insecticide in Barabanki District of Uttar Pradesh, India "**Insecticides are vital in agriculture for controlling pests and enhancing crop yields. However, their overuse can-lead to pest resistance, environmental contamination, and health risks to humans and beneficial organisms. Integrated Pest Management (IPM) strategies are recommended to mitigate these adverse effects. To assess consumers' perceptions of Ampligo (Syngenta)

insecticide in Barabanki District, Uttar Pradesh, focusing on factors such as effectiveness, safety, and value for money. It also aims to understand factors influencing consumers It will provide-insights into consumer perceptions of Ampligo insecticide, including its effectiveness, safety, and overall value. It will also-identify key factors influencing purchasing decisions.

5. **Garima Jain Asst. Prof., Deptt. of Botany, DAV College, Ambala City, Punjab, India in 2017, "Role of Biological Sciences in Organic Farming"** Chemical fertilizers enhance crop yields by supplying-essential nutrients like nitrogen, phosphorus, and potassium. However, their overuse poses health and environmental risks. Consequently, there's a growing shift towards organic farming and bio fertilizers, which are eco-friendly, cost-effective, and improve soil fertility by utilizing beneficial microorganisms To explore role of biological sciences in enhancing organic farming practices, focusing on how biological processes and techniques can improve soil health, pest management, and crop productivity. It will provide deeper understanding of how biological sciences contribute to advancement of organic farming, particularly in enhancing soil fertility, pest control, and overall crop productivity, It will also highlight the potential benefits.

6. **Pragati Tiwari, Research Scholar, Department of Commerce, CMP Degree College (University of Allahabad), Prayagraj, U.P., India in 2013, "Fertilizer Consumption and Production in India"**India's fertilizer sector is pivotal for agricultural productivity. However, the overuse of urea has disrupted the ideal NPK application ratio, leading to soil nutrient imbalances. Farmers are encouraged to transition from straight fertilizers to NPKS complex variants to restore balance and enhance crop growth To-analyze the patterns of fertilizer consumption and production in India, focusing on factors driving demand and supply. It also aims to assess challenges and opportunities in balancing fertilizer production with sustainable. The current trends and patterns of fertilizer consumption and production in India, highlighting key-factors that influence both demand and supply. It will also identify the challenges in ensuring a sustainable balance between production.

7. **Ajay Kumar, Baljeet Singh Saharan in 2024, "Revolutionizing Indian agriculture: the imperative of advanced biofertilizer technologies for sustainability"** The rising global population intensifies the need for sustainable agriculture. Biofertilizers, including Plant Growth-Promoting Bacteria (PGPB), fungal bio fertilizers, nanobiofertilizers, and biofilm biofertilizers, offer eco-friendly alternatives to chemical fertilizers. Advancements in these next-generation biofertilizers. To explore the potential of advanced biofertilizer technologies in revolutionizing Indian agriculture, focusing on their role in enhancing-soil health, improving crop productivity, and promoting sustainable farming practices sustainability of Indian agriculture by improving soil health & increasing crop yields. It will also highlight the barriers to widespread adoption of these technologies, such as awareness, cost, and infrastructure challenges.

8. **Ved Prajapati, B.S. Mankotia, Bharat Bhushan Rana, Akshit Sharma, Piyush Dogra, Suraj Sharma c, Abhay Verma c, Jagriti Sharma d and Dilkhush Meena in 2017. "Effect of Biofertilizers at Different Fertility Levels on Nutrient Content and Uptake by Gobhi Sarson (Brassica napus L.) under Himalayan Region"** Integrating biofertilizers like Azotobacter and

PSMO with 100% recommended fertilizer doses significantly enhances nitrogen, phosphorus, potassium, and zinc uptake in gobhi sarson, improving yield and soil health. understand how biofertilizers, applied at different fertility levels, affect the nutrient content and uptake in Gobhi Sarson (Brassica napus L.) grown in the Himalayan region. The study also aims to examine how these treatments impact the plant's growth It will help-understand how these treatments affect the growth and yield of the crop, as-well as how efficiently the plant absorbs nutrients. study will also-provide insights into the best ways to improve crop production.

9. **KarravulaRakesh and R. M. Naik 2021, "Characteristics of the Farmers Using the Private Bio-Fertilizers"**A study in Navsari district, South Gujarat, examined the personal, socio-economic, communicational, and psychological characteristics of farmers using private bio-fertilizers. findings indicated that the majority of respondents were middle-aged males with secondary education, small family sizes, and farming as their primary occupation. To identify the key characteristics of farmers who use private bio-fertilizers, focusing on factors such-as demographics, farming practices, and knowledge. It also aims to understand the reasons-behind their preference for private bio-fertilizers over other alternatives, Identifies that farmers using private bio-fertilizers are predominantly middle-aged males with secondary education, small family sizes, and farming as their primary occupation. They typically possess medium land holdings, moderate farming experience

10. **Priya Sharma, Nitin Barker, Sabhy Sharma and Sarika Bishnoi in 2012, "Study on Consumer Buying Behaviour of Selective Herbicide in Kurukshetra District of Haryana, India"**A study in Haryana's Kurukshetra district examined factors influencing farmers' purchasing decisions for selective herbicides. Key determinants included product quality, price, dealer relationships, brand image, and promotional strategies. Recommendations suggest agrochemical companies focus on these aspects to effectively meet farmers' needs. This-study is to analyze the consumer buying behavior of selective herbicides in Kurukshetra District, Haryana, focusing on factors such as brand preference, purchasing patterns, and the influence of price, effectiveness, and availability, This-study will provide-insights into key factors influencing-consumer buying behavior of selective herbicides in Kurukshetra District, such as price sensitivity, brand loyalty, and product effectiveness. It will also highlight the farmers' satisfaction.

11. **Sumaia M. Raheem, Hawall I. Rasul and Rezhen Harun in 2014, "Farmer's Behavior and Attitude in Using Chemical Fertilizers and Pesticide in Rural Areas and its Effects on the Environment"** Excessive use of chemical fertilizers and pesticides in agriculture can lead to environmental degradation, including soil acidification, biodiversity loss, and contamination of water sources. In Sulaimani, Iraq, many farmers apply these chemicals liberally, often disregarding product guidelines, which exacerbates environmental and health risks To understand how farmers in rural areas feel about and use chemical fertilizers and pesticides, and what factors influence their choices. It also looks at the effects of these practices on the environment, such as soil quality and local ecosystems. It will provide a clear understanding of farmers' attitudes and reasons for using chemical fertilizers and pesticides in rural areas, it will also highlight the environmental impact of these practices, such as changes in soil quality.

12. **Praveen Desai, Amratraj Patil and Kadli Veeresh in 2023 "An overview of production and consumption of major chemical fertilizers in India"**Between 1980-2013, India's fertilizer sector experienced significant growth in both production and consumption of nitrogen, phosphorus, and potassium (NPK) fertilizers. The annual growth rates for nitrogen, phosphatic, and potassic fertilizers were 3.04%, 3.77%, and 4.09%, respectively, from 1990-91 to 2018-19. However, after 2010-11, a decline in growth rates -was observed, with negative trends in phosphatic and potassic fertilizer consumption. To provide an overview of the production and consumption trends of major chemical fertilizers in India. It also aims to analyze the factors influencing the demand and supply of these fertilizers, along with their impact on agricultural productivity. This study will provide a clear picture of the current trends in production and use of major chemical fertilizers in India. It will also identify the factors driving demand and supply.

13. **Sarika Bishnoi , Nitin Barker , Kale Pranil Sunil and Priya Sharma in 2006 "An Investigation on the Distribution Channels and Demand Analysis for National Fertilizers Limited (NFL) Products in Sri-Ganganagar District of Rajasthan, India"**Fertilizer is one of strategic inputs for enhancing productivity which enables the farmers to meet growing demand for food in country. Distribution of various-fertilizers is very active & dense, chiefly done by-cooperative societies, some public & private sectors. study analyzed distribution system of fertilizers in Sri Ganganagar-district of Rajasthan. This study is to investigate-distribution channels for National-Fertilizers Limited (NFL) products in Sri-Ganganagar-District, Rajasthan, & analyze demand patterns for these products. It also aims to understand factors influencing demand-effectiveness of distribution-channels for NFL products in Sri Ganganagar District & identify key factors-driving demand for these products. It will also highlight any challenges or gaps in the current distribution.

14. **Dinkar Joshi , Nitin Barker and Jayant Zechariah in 2013, "Study on Consumer Behaviour-toward Organic Products in the Nainital District of Uttarakhand, India"** Studies in Kheda district, Gujarat, reveal that 68% of farmers are satisfied with fertilizer pricing, 83% with performance, and 92% with quality. Key purchasing factors include -product quality, price, dealer recommendations, and personal experience To-analyze consumer-behavior towards organic products in Nainital District of Uttarakhand, focusing on factors-such as awareness, purchasing patterns, and preferences. It also aims to identify motivations and challenges. Understand why people in Nainital District choose organic products, including what drives their decisions, like health or environmental concerns. It will also point out the challenges they face, such as high prices or limited availability.

15. **Bino Paul , Unmesh Patnaik and Chandra Sekhar Bahinipati , Subash Sasidharan, Kamal Kumar Murari in 2023 "Fertilizer Use, Value, and Knowledge Capital: A Case of Indian Farming"** A study analyzing India's agricultural microdata found that fertilizer use correlates directly with production value. Notably, the lowest production quantiles exhibit the highest fertilizer usage. Additionally, fertilizer application positively correlates with certain information sources. objective of this study is to-explore how fertilizers are used in Indian farming, focusing on their value and the knowledge farmers have about them. It also aims to understand how this knowledge affects fertilizer. Farmers in India use fertilizers and why they consider-them important for better

crop production. It will also highlight how-much farmers know about fertilizers & how this knowledge affects their choices and farming methods.

16. **Seddy Bhagyamma and A.R.S. Bhatin 2023, "An Analysis of Pattern and Growth of Fertilizer-Consumption in Karnataka State, India"** Studies indicate that Dharwad district's NPK-fertilizer consumption declined at -5.77% from 2004 to 2015, with phosphatic fertilizers decreasing by -7.70%. In contrast, Davangere district saw positive growth in nitrogen (5.38%) and phosphatic (3.07%) fertilizers. The study examines fertilizer consumption patterns and growth in Dharwad and Davangere districts, employing tabular and compound growth rate analyses to assess NPK fertilizer usage trends over time. The study reveals that Dharwad district experienced a negative growth rate (-5.77%) in NPK fertilizer consumption from 2004 to 2015, with phosphatic fertilizers declining by 7.70%. Conversely.

17. **Nitin Sharma1, R.S. Pannu, D.P. Malik, Veer Sain and Ratika Kayastha in 2013, "Analysis of Growth Trends of Production & Consumption of Fertilizer Nutrients in India"** Between 1990-91 and 2019-20, India's fertilizer consumption increased from 12.55 million tonnes to 29.37 million tonnes, with nitrogen, phosphorus, and potash fertilizers experiencing annual growth rates of 3.02%, 3.71%, and 3.92%, respectively. However, post-2010-11, there was a decline in fertilizer use, with overall growth falling to -0.21%, phosphorus decreasing by 1.29%. The study aimed to analyze the trends in production & consumption of fertilizer nutrients in India from 1990-91 to 2019-20 The study aimed to analyze the trends in production &consumption of fertilizer nutrients in India from 1990-91 to 2019-20.

18. **Sharma and Singh (2016) studied farmer satisfaction and loyalty towards branded fertilizers in Northern India.**Their research highlighted that farmers' prior experience with a fertilizer brand strongly influences their purchase decisions. If a farmer observes consistent results in terms of crop yield and soil response, trust in that brand increases, leading to repeat purchases. The study also emphasized product quality as critical factor: farmers assess quality based on factors such-as nutrient composition, effectiveness in promoting crop growth, and visible short-term results. The researchers noted that superior quality often outweighs other considerations like price, particularly among medium and large-scale farmers who are-more focused on yield than cost. Another key finding was role of brand reputation and reliability. Farmers tend to-prefer brands that are recommended by trusted dealers or have a strong presence in the local market. Sharma and Singh observed that once a brand has established trust, farmers are less likely to switch to competitors, even if alternatives are available at lower prices.

19. **Hesty Nurul Utamia), Agriani Hermita Sadelib, Tomy Perdanac in 2023 "Consumer preference of fertilizer in West Java using multi-dimensional scaling approach"** This research aims to analyze-consumer preferences for fertilizers in nine districts of West Java, focusing on key product attributes. The study employs a multi-dimensional scaling method to visualize similarities among fertilizer brands. objective of this-study is to identify and analyze key-attributes influencing consumer preferences for fertilizers in West Java. It aims to help fertilizer companies understand market demand and improve their product strategies. The study identifies key attributes shaping

consumer preferences for fertilizers and maps brand similarities. It provides insights for companies to enhance product strategies and meet market demands in West Java.

20. **Parameshwari, Narendar G , Krishna Chaitanya and Chandrasekhar K in 2023 "Understanding of Organic Fertilizers in Indian"** Understanding and utilization of organic fertilizers among Indian farmers, highlighting their benefits for plant nutrition, soil health, and pest control. It examines commonly used organic fertilizers and their role in enhancing microbial activity and plant growth. The study seeks to provide insights into promoting sustainable agricultural practices through organic fertilization. To assess farmers' understanding and usage of organic fertilizers in India, examining their benefits for soil health, plant nutrition, and pest control. It aims to identify factors influencing adoption and provide insights for promoting sustainable farming practices, The study highlights the benefits of organic fertilizers in enhancing soil health, plant nutrition, and microbial activity. It provides insights into factors influencing farmers' adoption and strategies to promote sustainable farming in India.

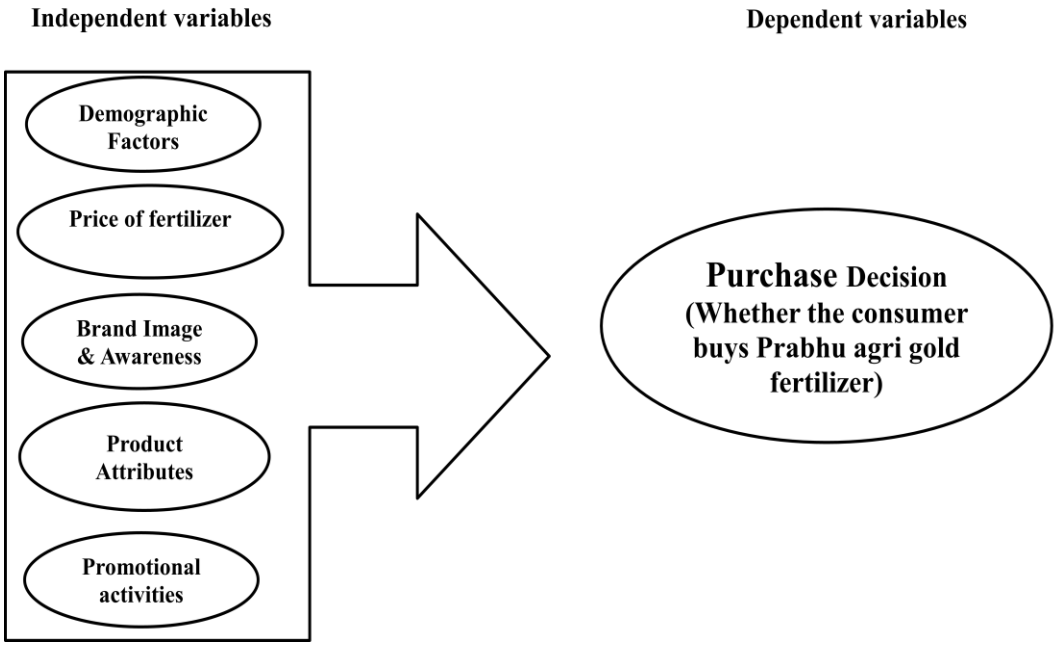
## PROBLEM STATEMENT

This study-looks at how consumers in Bagalkot District make decisions when buying Prabhu Agri Gold fertilizer. It focuses on what influences their choices, how they see the brand, and what factors matter most to them. The goal is to understand their preferences and find ways to improve sales and customer satisfaction.

## OBJECTIVES

- To examine the demographic significant relationship on consumer buying decisions.
- To study the factors influencing consumers purchase decision Prabhu Agri Gold Fertilizer
- To evaluate role of the promotional strategies in consumer purchasing decisions.

# Theoretical Framework




**Hypotheses**

H1: Brand image and awareness significantly influence consumer purchase decisions for Prabhu Agri Gold Fertilizer.

H2: Product attributes has a significantly impact on consumer buying behavior.

H3: Price significantly influences purchase decisions.

H4: Promotional-activities significantly impact consumer buying behavior.

H5: Consumer demographics (gender, age, education, occupation, annual income, size of land holding) significantly influence their preference for Prabhu Agri Gold Fertilizer.

**Scope of the Study**

To gain comprehensive understanding of Prabhu Agri Gold Fertilizer's market position, this study will-look into consumer preferences by comparing it against competing brands. It will also identify the various factors that influence consumers' decisions specifically regarding Prabhu Agri Gold Fertilizer. Furthermore, the research will evaluate the impact of key product attributes, namely price, quality, and effectiveness, on consumers' purchasing decisions within the fertilizer market.

**Limitation of the-Study**

- ❑ Limited sample size study-may not cover all potential consumers, leading to less generalizable results
- ❑ Geographical constraints are findings specific to Bagalkot district and may not apply to other regions.
- ❑ Consumer bias is responses may be influenced by personal preferences, brand loyalty, or external factors.
- ❑ Limited time frame market-trends and consumer-behavior can change over time, affecting the study's relevance.

**Research Methodology**

**1. Type of research:** Descriptive research.

**2. Sources of data:**

- Primary Data: Data will be collected with structured questionnaires by surveying.

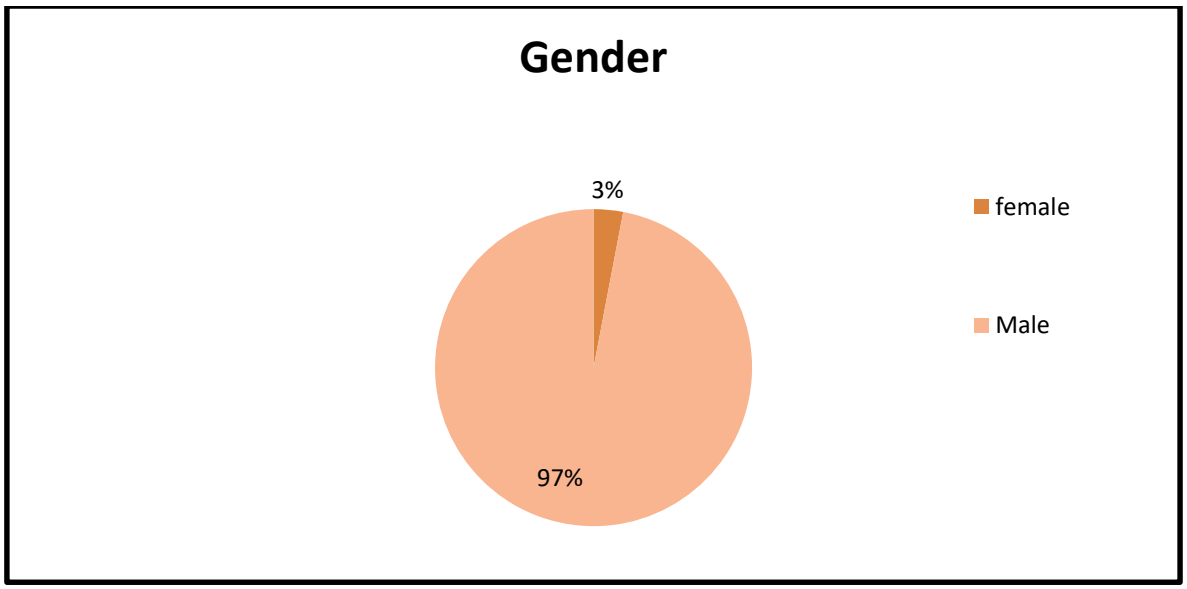
**3. Sample plan:** Sample frame: Bagalkot District.

- Sample size: 100
- Sample Unit : Prabhu agri gold fertilizer Consumers at Bagalkot District
- Sampling Technique : Random Sampling Technique

**4. Data analyzing tool:** SPSS, Excel.

**Demographics**

| 1. Gender | | | | |
|---|---|---|---|---|
| Gender | Frequency | Percent | Valid-Percent | Cumulative-Percent |
| female | 3 | 3.0 | 3.0 | 3.0 |
| Male | 97 | 97.0 | 97.0 | 100.0 |
| Total | 100 | 100.0 | 100.0 | |




**Analysis:**

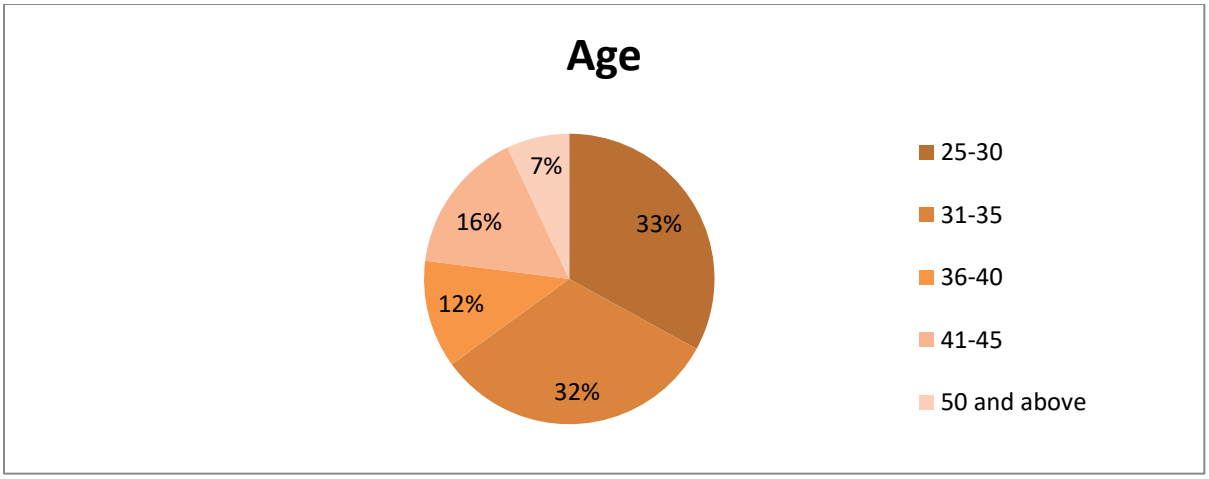
The data shows a significant gender imbalance, with 97% male and only 3% female participants. This highlights a male-dominated sample with very limited female representation.

**Interpretation:**

The gender imbalance suggests that the study's results are primarily shaped by male perspectives, limiting gender-based comparisons. To improve reliability and inclusiveness, future research-should ensure better female representation.

**Age**

| Age | | | | |
|---|---|---|---|---|
| Age | Frequency | Percent | Valid Percent | Cumulative Percent |
| 25-30 | 33 | 33.0 | 33.0 | 33.0 |
| 31-35 | 32 | 32.0 | 32.0 | 65.0 |
| 36-40 | 12 | 12.0 | 12.0 | 77.0 |
| 41-45 | 16 | 16.0 | 16.0 | 93.0 |
| 50 and above | 7 | 7.0 | 7.0 | 100.0 |
| Total | 100 | 100.0 | 100.0 | |

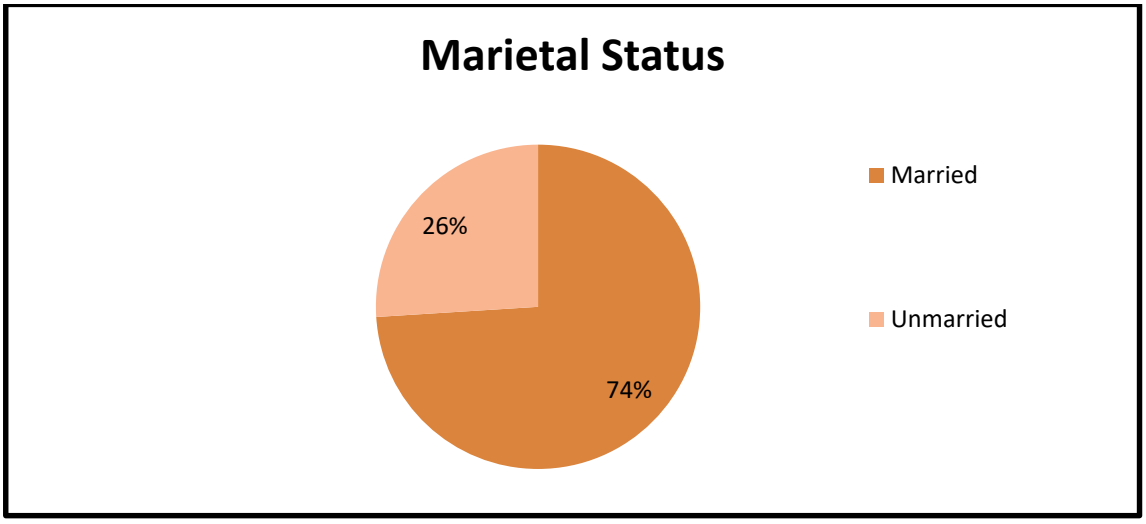



**Analysis:**
The age-wise data reveals a predominantly younger demographic, with 65% of respondents aged between 25–35 years. Older age-groups are less represented, especially those 50 and above, who make up only 7% of sample.

**Interpretation:**
Data shows a concentration of respondents aged 25–35, indicating the study mainly reflects young adult views. Limited input from older age groups may affect the study's ability to represent age-diverse perspectives, highlighting need for a more balanced age distribution in future research.

**3. Marital Status**

| Material status | | | | |
|---|---|---|---|---|
| Material - Status | Frequency | Percent | Valid-Percent | Cumulative-Percent |
| Married | 74 | 74.0 | 74.0 | 74.0 |
| Unmarried | 26 | 26.0 | 26.0 | 100.0 |
| Total | 100 | 100.0 | 100.0 | |




**Analysis:**
Marital-status data shows that out of 100 respondents, 74 individuals (74%) are married, while 26 individuals (26%) are unmarried. This indicates a clear dominance of married individuals in sample. The "Percent" and "Valid Percent" columns are identical, confirming- that all responses are valid and none were omitted. The "Cumulative Percent" column shows a smooth progression from 74% for married individuals to a complete 100% when unmarried respondents are included. This reflects a well-documented and complete dataset with no missing entries.

**Interpretation:**
The results suggest that majority of participants in the study are married, meaning the findings may largely reflect the experiences, views, or preferences of married individuals. Since only about a quarter of sample consists of unmarried respondents, the perspective of single individuals may be underrepresented. If marital status plays an important-role in context of the research—such as in lifestyle choices, financial decisions, or social behavior—this imbalance could potentially skew the

conclusions. Therefore, future studies should -consider more proportionate mix of marital statuses to enhance inclusivity & reliability of the analysis.

**Independent Variables**

**1. Demographic factor**

| 1. Age | | | | |
|---|---|---|---|---|
| | Frequency | Percent | Valid Percent | Cumulative Percent |
| 18-25 | 14 | 14.0 | 14.0 | 14.0 |
| 26-35 | 46 | 46.0 | 46.0 | 60.0 |
| 36-45 | 29 | 29.0 | 29.0 | 89.0 |
| 46-55 | 7 | 7.0 | 7.0 | 96.0 |
| 56yearsandabove | 4 | 4.0 | 4.0 | 100.0 |
| Total | 100 | 100.0 | 100.0 | |

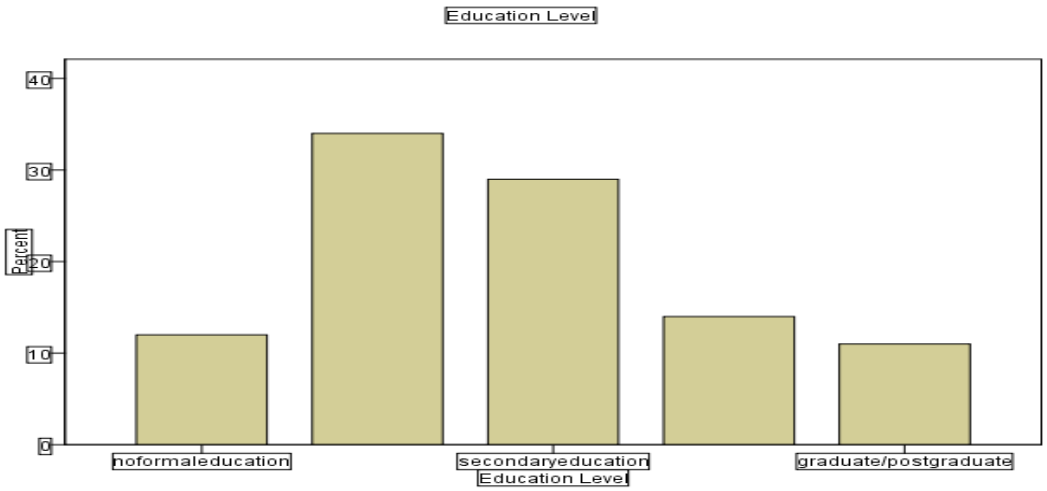
**Analysis:**

Age distribution of the 100 respondents is divided into five groups. The 26–35 age group has the highest representation with 46 respondents (46%), followed by the 36–45 group, which includes 29 individuals (29%). Together, these two groups make-up 75% of total sample, indicating a concentration of participants in early to mid-adult stages of life. The 18–25 age group contributes 14%, showing smaller proportion of younger respondents. The 46–55 group includes 7% of sample, while only 4% of respondents-are 56 years and above, making it the least represented age category. The "Valid Percent" and "Percent" columns are identical, confirming that there were no missing or invalid responses. The cumulative percentage increases steadily to 100%, indicating full data coverage.

**Interpretation:**

Data reveals that majority of respondents fall between the ages of 26 and 45, suggesting that study primarily captures the perspectives of working-age adults or individuals in their prime career and life stages. The low representation of both the youngest (18–25) and oldest (46 and above) age groups suggests limited input from younger and older generations. If age is significant factor in the research, such as in consumer behavior, work-life balance, or technology adoption, this age skew may-lead to biased or incomplete conclusions. For more -holistic understanding, future research should-aim to include a more balanced sample-across all age groups to ensure diverse and inclusive insights.

| 2. Education Level | | | | |
|---|---|---|---|---|
| Education | Frequency | Percent | Valid Percent | Cumulative Percent |
| Noformal Education | 12 | 12.0 | 12.0 | 12.0 |
| Primary Education | 34 | 34.0 | 34.0 | 46.0 |
| Secondary Education | 29 | 29.0 | 29.0 | 75.0 |
| Higher Secondary Education | 14 | 14.0 | 14.0 | 89.0 |
| Graduate/postgraduate | 11 | 11.0 | 11.0 | 100.0 |
| Total | 100 | 100.0 | 100.0 | |




**Analysis:**

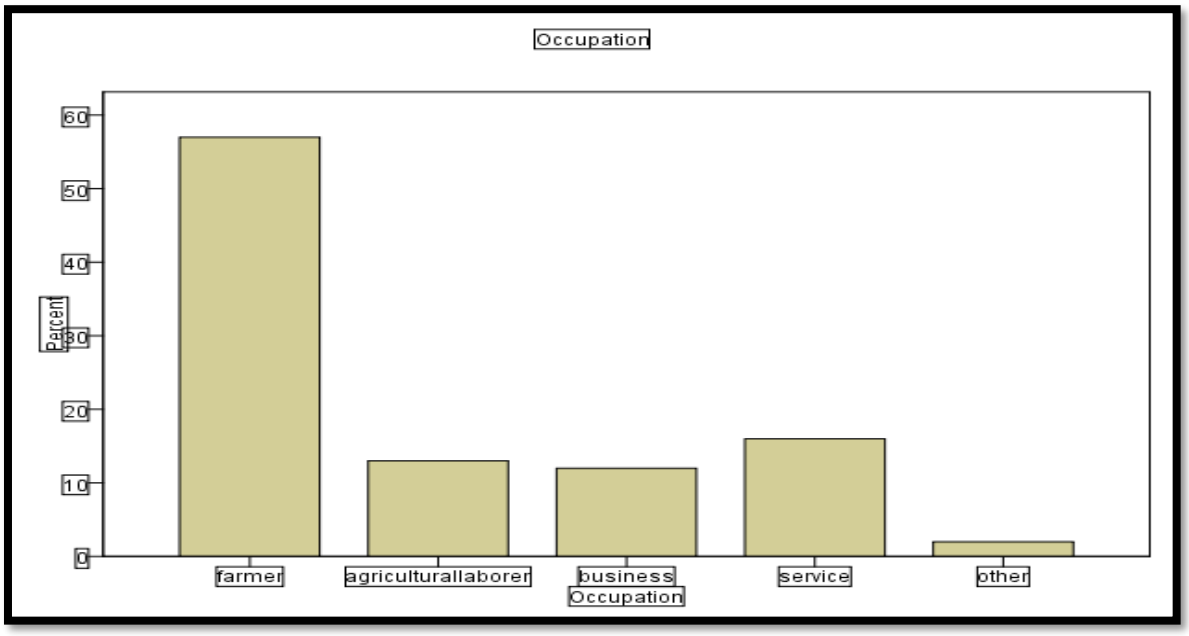
The educational qualification data of 100 respondents shows a varied distribution across different education levels. The largest portion of respondents, 34%, have attained primary education, followed by 29% with secondary education. This indicates-that over half of respondents (63%) have education levels limited to primary &secondary stages. 12% of sample reported having no formal education, while 14% have completed higher secondary education. Only 11% of respondents have pursued graduate or postgraduate studies, making it the least represented group. The "Valid Percent" and "Percent" columns are identical, confirming all responses are valid, and the cumulative percentages add up sequentially to 100%, ensuring complete data collection.

**Interpretation:**

Data indicates that a majority of respondents have lower to mid-level educational qualifications, with a relatively small number of individuals reaching higher education levels. This suggests that the sample is primarily composed of individuals with basic educational backgrounds, which may influence their awareness, choices, or opinions depending on context of the study. The low representation of graduates and postgraduates could limit the analysis if the research requires insights from highly educated individuals. Similarly, the presence of 12% with no formal education is significant and should be

considered when interpreting comprehension or decision-making behaviors. For a more balanced understanding in future-studies, researchers may consider including a wider range of participants across all education levels to capture a broader spectrum of perspectives.

| 3. Occupation | | | | |
|---|---|---|---|---|
| Occupation | Frequency | Percent | Valid Percent | Cumulative Percent |
| farmer | 57 | 57.0 | 57.0 | 57.0 |
| Agriculturallaborer | 13 | 13.0 | 13.0 | 70.0 |
| business | 12 | 12.0 | 12.0 | 82.0 |
| service | 16 | 16.0 | 16.0 | 98.0 |
| Other | 2 | 2.0 | 2.0 | 100.0 |
| Total | 100 | 100.0 | 100.0 | |



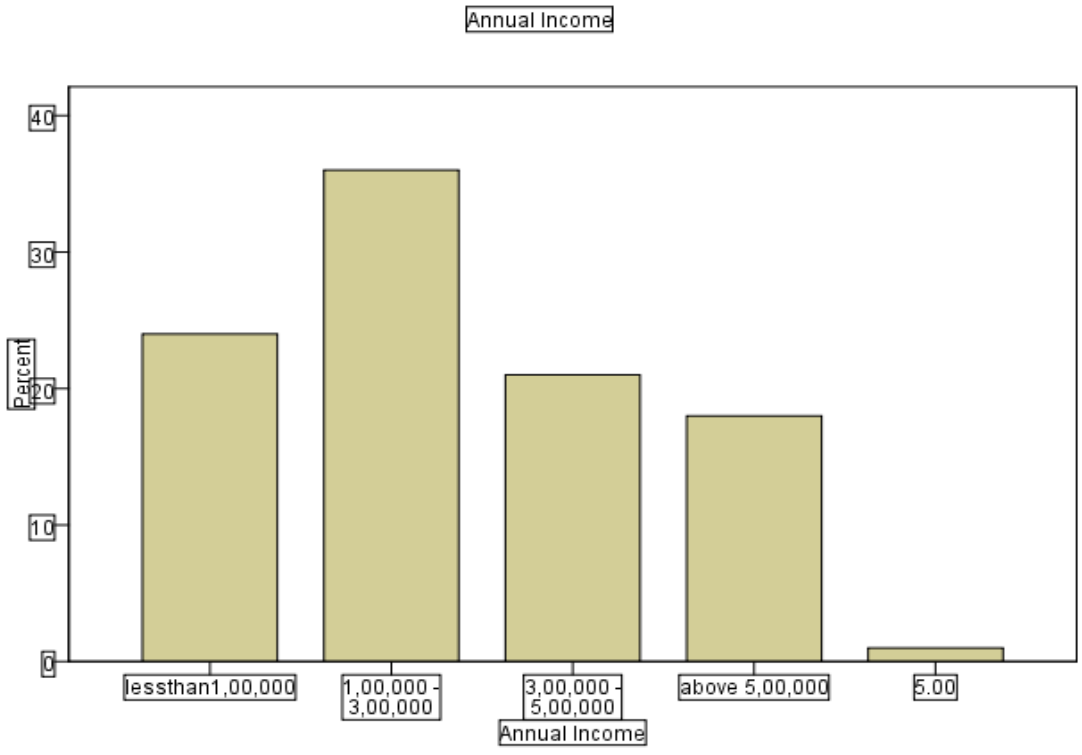

**Analysis:**

The occupational data of the 100 respondents reveals a dominant-presence of individuals engaged in farming, accounting for 57% of total sample. This is followed by service sector employees (16%), and agricultural laborers (13%). smaller portion, 12%, are involved in business-activities, while only 2% fall under 'other' category, representing the least common occupations. The "Valid Percent" and "Percent" values are consistent, showing no missing data, and the "Cumulative Percent" confirms a smooth progression to 100%, indicating a fully valid dataset.

**Interpretation:**

The findings show that farming is the predominant occupation among respondents, highlighting a rural or agrarian background for the majority of the population. The substantial number of agricultural laborers further reinforces the conclusion that the respondents are primarily linked to agriculture-based livelihoods. The limited representation from business, service, and other sectors suggests that insights-from this study will mainly reflect opinions and experiences of those in the agriculture sector. If occupational background influences attitudes or behaviors relevant to the study, this imbalance may lead to a narrow perspective. For broader and more balanced results, future-studies should aim to include a more diverse occupational mix to represent both rural and non-rural populations effectively.

| **4. Annual Income** | | | | |
|---|---|---|---|---|
| Annual-Income | Frequency | Percent | Valid-Percent | Cumulative Percent |
| Lessthan1,00,000 | 24 | 24.0 | 24.0 | 24.0 |
| 1,00,000 - 3,00,000 | 36 | 36.0 | 36.0 | 60.0 |
| 3,00,000 - 5,00,000 | 21 | 21.0 | 21.0 | 81.0 |
| above 5,00,000 | 18 | 18.0 | 18.0 | 99.0 |
| 5 | 1 | 1.0 | 1.0 | 100.0 |
| Total | 100 | 100.0 | 100.0 | |



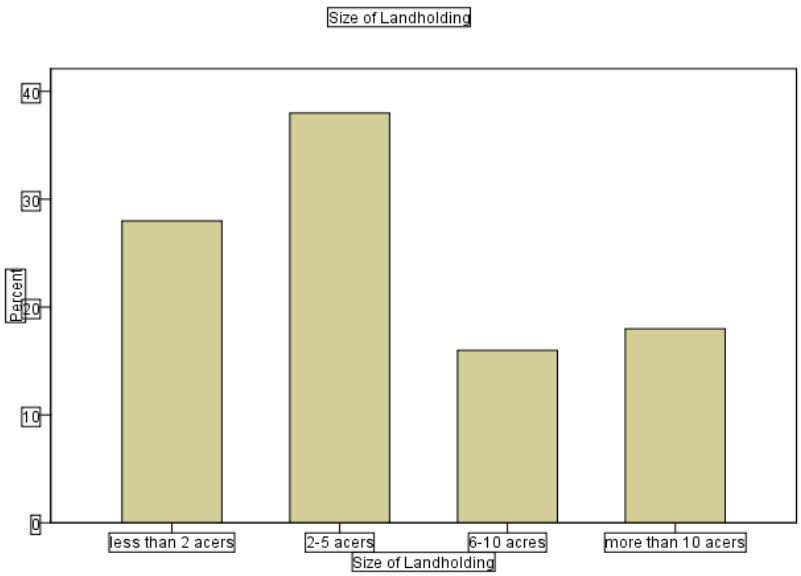
**Analysis:**

The annual income distribution among 100 respondents shows that majority (36%) fall in income range of ₹1,00,000 to ₹3,00,000, followed by 24% earning less than ₹1,00,000 annually. The ₹3,00,000 to ₹5,00,000 bracket includes 21% of the respondents, and 18% earn above ₹5,00,000. There is also one respondent (1%) recorded under an undefined category labeled as "5", which may indicate an entry or labeling error in the data. The “Percent” and “Valid Percent” columns match, confirming that all responses are valid, and the cumulative percentages progress to 100%, indicating complete data coverage.

**Interpretation:**

The data suggests that large portion of the population earns below ₹3,00,000 annually, which indicates that most-respondents belong to the low- to lower-middle-income group. Only a small share (18%) of the respondents earn above ₹5,00,000, implying a relatively low presence of high-income earners in the sample. This income distribution suggests economic constraints and may influence consumption patterns, financial decisions, or access to services. Additionally, the presence of a miscategorized or unclear income entry points to the need for data cleaning or clarification. For more accurate income-based analysis in future studies, it's important to ensure that all income categories are clearly defined and that sample includes a more balanced-representation of all income levels.

| 5. Size of Landholding | | | | |
|---|---|---|---|---|
| Size of Landholding | Frequency | Percent | Valid Percent | Cumulative Percent |
| less than 2 acers | 28 | 28.0 | 28.0 | 28.0 |
| 2-5 acers | 38 | 38.0 | 38.0 | 66.0 |
| 6-10 acres | 16 | 16.0 | 16.0 | 82.0 |
| more than 10 acers | 18 | 18.0 | 18.0 | 100.0 |
| Total | 100 | 100.0 | 100.0 | |



**Analysis:**

The table shows the landholding size distribution among respondents, divided into four categories. A significant portion, 38%, own-between 2 to 5 acres, making it most represented group. Next, 28% of individuals have holdings smaller than 2 acres, highlighting a considerable number of small-scale farmers. Meanwhile, 16% of the respondents hold 6 to 10 acres, and 18% possess more than 10 acres of land. These figures-indicate a broad range of land sizes within population surveyed.

**Interpretation:**

The data reveals that majority of respondents are small to medium landowners. With 66% owning up to 5 acres, it suggests that marginal and small-scale farming is dominant in the area. This may point to lower agricultural productivity and the likelihood of seeking supplementary income sources. Conversely, 34% of sample own land exceeding 5 acres, indicating segment of medium and large farmers who might-benefit from better agricultural opportunities. Overall, the data portrays a diverse farming structure, leaning more toward smaller landholdings.

**Simple t-test for gender**

| Group Statistics | | | | | |
|---|---|---|---|---|---|
| | Gender | N | Mean | Std. Deviation | Std. Error Mean |
| Purchasedecision | female | 3 | 13.6667 | 2.30940 | 1.33333 |
| | male | 97 | 15.9175 | 2.37026 | .24066 |

| Independent-Samples Test | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Levene's - Test for Equality of Variances | | t-test for-Equality of Means | | | | | | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Purchasedecision | Equal - variances assumed | .002 | .966 | -1.621 | 98 | .108 | -2.25086 | 1.38875 | -5.00679 | .50507 |
| | Equal - variances not assumed | | | -1.661 | 2.132 | .231 | -2.25086 | 1.35488 | -7.74696 | 3.24525 |

**Analysis:**

Independent samples t-test was conducted to examine whether there is a significant-difference in purchase decision scores between male & female respondents. The sample included 3 females with a mean purchase decision score of 13.67 (SD = 2.31) and 97 males with mean of 15.92 (SD = 2.37). Levene's Test-for Equality of Variances-shows an F value of 0.002 with significance level of 0.966, indicating that assumption of equal variances is met.

Based on equal variances assumed, the t-test yielded a t-value of -1.621 with 98 degrees of freedom and p-value of 0.108. mean difference in scores is -2.25, with standard error of 1.39. 95% confidence interval ranges from -5.01 to 0.51.

**Interpretation:**

Although male respondents scored higher on purchase decision compared to female respondents, difference is not statistically significant at 0.05 level-(p = 0.108). This suggests that gender-does not have significant impact-on purchase decision behavior in the given sample. The wide confidence interval further indicates that true-mean difference could range from a negative to a slightly positive value, reinforcing conclusion that there is no clear or reliable effect of gender on purchase decision in this dataset. results should be interpreted cautiously due to very small number of female respondents (N=3), which may limit reliability of comparison.

**Gender**

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Purchase decision | | | | | |
| | Sum of-Squares | df | Mean-Square | F | Sig. |
| Between Groups | 14.743 | 1 | 14.743 | 2.627 | .108 |
| Within Groups | 550.007 | 98 | 5.612 | | |
| Total | 564.750 | 99 | | | |

**Analysis:**

One-Way ANOVA was-conducted to determine whether there is significant-difference in purchase-decision scores between different groups (in this case, likely based on gender, with two groups: male & female). The ANOVA-results show that the Between Groups sum of -squares is 14.743 with 1 degree of freedom, resulting in mean square of 14.743. The Within Groups sum of-squares is 550.007 with 98 degrees of-freedom, giving a mean square of 5.612. The calculated F-value is 2.627 with a significance (p-value) of 0.108.

**Interpretation:**

ANOVA result-shows that there is no statistically-significant difference in purchase decision scores between the groups (p = 0.108, which is greater-than 0.05). This indicates that group -membership (e.g., gender) does not-significantly influence purchase decision among respondents in this sample. While some-variation exists between groups, it is-not large enough to conclude-that the difference is meaningful. As result, the null-hypothesis, which states that-there is no difference between group means, cannot be rejected.

**Age**

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Purchasedecision | | | | | |
| | Sum of-Squares | df | Mean Square | F | Sig. |
| Between Groups | 14.743 | 1 | 14.743 | 2.627 | .108 |
| Within Groups | 550.007 | 98 | 5.612 | | |
| Total | 564.750 | 99 | | | |

**Analysis:**

Table presents the results of a One-Way ANOVA conducted to compare purchase decision scores across two groups. The Between Groups sum of-squares is 14.743 with 1 degree of freedom, leading to mean square value of 14.743. The Within Groups-sum of squares is 550.007 with 98 degrees of freedom, resulting in mean square of 5.612. The F-statistic calculated is 2.627, and the p-value associated with this result is 0.108.

**Interpretation:**

The ANOVA test shows that difference in purchase decision scores between the two groups is not statistically-significant at 0.05 level (p = 0.108). This suggests that observed-variation in mean scores between the groups is likely due to chance rather-than true effect. Since the significance value is greater-than 0.05, we fail to reject-null hypothesis, indicating that group membership (such as gender) does not a significant influence on purchase decision behavior in this sample.

**Marital status**

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Purchasedecision | | | | | |
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 57.774 | 4 | 14.444 | 2.707 | .035 |
| Within Groups | 506.976 | 95 | 5.337 | | |
| Total | 564.750 | 99 | | | |

**Analysis:**

The One-Way ANOVA-was performed to examine whether there are significant-differences in purchase decision scores among five different groups. The Between Groups sum of-squares is 57.774 with 4 degrees of freedom, resulting in mean square of 14.444. The Within Groups sum-of squares is 506.976 with 95 degrees-of freedom, giving a mean square of 5.337. The F-value obtained is 2.707, and significance level (p-value) is 0.035.

**Interpretation:**

ANOVA results indicate statistically-significant difference in purchase decision scores among the five groups, as the p-value (0.035) is less than the threshold of 0.05. This means we reject the null hypothesis, suggesting that at least one group's mean purchase decision score significantly differs from the others. The findings imply that group characteristics (such as income level, education, or occupation—depending on your grouping variable) may have a meaningful impact on consumers' purchase decisions.Further post-hoc analysis (like Tukey's HSD) would help identify which specific-groups differ from each other**.**

**Demographic Factor**

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Purchasedecision | | | | | |
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 1.809 | 1 | 1.809 | .315 | .576 |
| Within Groups | 562.941 | 98 | 5.744 | | |
| Total | 564.750 | 99 | | | |

**Analysis:**

One-Way ANOVAtest was-carried out to check if there is significant difference in purchase decision scores-between two groups. The Between Groups sum-of squares is 1.809 with 1 degree of freedom, resulting in mean square of 1.809. The Within Groups sum of-squares is 562.941 with 98 degrees of -freedom, leading to a mean square of 5.744. The calculated F-value is 0.315, & the corresponding significance value (p-value) is 0.576.

**Interpretation:**

Results of ANOVA indicate that there is no-significant difference in purchase decision scores between the two groups, as the p-value (0.576) is greater-than 0.05. This means we fail to reject null-hypothesis, suggesting that group membership has no notable impact-on purchase decisions in this case. The low F-value also supports that variation between the group means is minimal compared to variation within the groups. Therefore, any difference observed is likely due to random-chance rather than a real effect.

**Education Level**

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Purchasedecision | | | | | |
| | Sum of-Squares | df | Mean-Square | F | Sig. |
| Between Groups | 27.893 | 4 | 6.973 | 1.234 | .302 |
| Within Groups | 536.857 | 95 | 5.651 | | |
| Total | 564.750 | 99 | | | |

**Analysis:**

One-Way ANOVA was conducted to investigate whether there are statistically-significant differences in purchase decision scores among five different groups. The Between Groups sum of squares is 27.893 with 4 degrees of freedom, resulting in mean square-value of 6.973. The Within Groups sum of squares is 536.857 with 95 degrees of freedom, yielding mean square of 5.651. calculated F-statistic is 1.234, and the p-value (Sig.) is 0.302.

**Interpretation:**

ANOVA results indicate that there is no significant-difference in purchase decision scores across the five groups, as the p-value (0.302) is greater than 0.05. This suggests that differences observed in mean-scores between the groups are not statistically meaningful, and null hypothesis cannot be rejected. In other words, group classification—possibly based on demographic or behavioral factors—does not a significant influence on consumers' purchase decisions in this sample. Any variation noted is likely due to random-fluctuations rather than actual group effects.

**Occupation**

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Purchasedecision | | | | | |
| | Sum-of Squares | df | Mean-Square | F | Sig. |
| Between-Groups | 3.675 | 4 | .919 | .156 | .960 |
| Within Groups | 561.075 | 95 | 5.906 | | |
| Total | 564.750 | 99 | | | |

**Analysis:**
A One-Way ANOVA was-carried out to assess whether there are significant-differences in purchase-decision scores among five distinct groups. The Between Groups sum-of squares is 3.675 with 4 degrees-of freedom, leading to a mean square of 0.919. The Within Groups sum of-squares is 561.075 with 95 degrees-of freedom, resulting in mean square of 5.906. The test produced an F-value of 0.156 and a significance level (p-value) of 0.960.

**Interpretation:**
ANOVA results show that difference in purchase decision scores among the five groups is not statistically significant, as the p-value (0.960) is much greater-than 0.05. This-means that we fail to reject null hypothesis, indicating that there is no meaningful variation in purchase decisions between groups analyzed. The very low F-value and minimal between-group variation compared to within-group variation further confirm that group-membership does not significantly impact purchase behavior in this dataset.

**Annual Income**

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Purchasedecision | | | | | |
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 11.338 | 4 | 2.835 | .487 | .746 |
| Within Groups | 553.412 | 95 | 5.825 | | |
| Total | 564.750 | 99 | | | |

**Analysis:**
A One-Way ANOVA was-conducted to determine whether there are statistically-significant differences in purchase-decision scores among five groups. Between Groups sum of-squares is 11.338 with 4 degrees of-freedom, giving mean square value of 2.835. The Within Groups sum of-squares is 553.412 with 95 degrees-of freedom, resulting in mean square of 5.825. The F-value is 0.487 and the significance (p-value) is 0.746.

**Interpretation:**
Tesults indicate-that there is no statistically significant difference in purchase decision scores among the five groups, as the p-value (0.746) is well above the 0.05 threshold. This means we fail to reject null hypothesis, suggesting that group differences do not a meaningful effect on purchase decisions. The low F-value and high p-value confirm that any variations in group -means are likely due to chance rather than actual differences. Thus, the factor used to group respondents does not significantly-influence their purchase decision behavior.

**Size of land holding**

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Purchasedecision | | | | | |
| | Sum of Squares | df | Mean-Square | F | Sig. |
| Between Groups | 38.548 | 4 | 9.637 | 1.740 | .148 |
| Within Groups | 526.202 | 95 | 5.539 | | |
| Total | 564.750 | 99 | | | |

**Analysis:**
A One-Way ANOVA was performed to assess whether there are significant-differences in purchase decision scores across five different groups. Between Groups sum-of squares is 38.548 with 4-degrees of freedom, resulting in mean square of 9.637. The Within Groups sum of-squares is 526.202 with 95-degrees of freedom, giving mean square of 5.539. The computed F-value is 1.740 and the corresponding p-value (Sig.) is 0.148.

**Interpretation:**
ANOVA results show that difference in purchase decision scores among the five groups is not statistically significant, as the p-value (0.148) is greater than 0.05. This indicates that null hypothesis cannot be rejected, meaning there is no meaningful-difference in purchase decisions based on group classifications. Although there is some-variation between groups, it is not large enough to be considered

significant, and the observed differences may be due to random-variation rather than actual group influence.

**Liner regression**

**Price of Fertilizers**

| Model Summary | | | | |
|---|---|---|---|---|
| Model | R | R Square | Adjusted R-Square | Std. Error of the – Estimate |
| 1 | .631[a] | .398 | .392 | 1.87060 |
| a. Predictors: (Constant), PriceofFertilizer | | | | |

| ANOVA | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 224.604 | 1 | 224.604 | 64.189 | .000[a] |
| | Residual | 339.416 | 97 | 3.499 | | |
| | Total | 564.020 | 98 | | | |
| a. Predictors: (Constant), PriceofFertilizer | | | | | | |
| b. Dependent Variable: Purchasedecision | | | | | | |

| Coefficients | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Unstandardized - Coefficients | | Standardized - Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 4.822 | 1.390 | | 3.468 | .001 |
| | PriceofFertilizer | 2.749 | .343 | .631 | 8.012 | .000 |
| a. Dependent Variable: Purchasedecision | | | | | | |

**Analysis:**

The R value is 0.631, indicating a moderate to strong positive correlation between the price of fertilizer and purchase decision.

The **$R^2$ value is 0.398**, meaning that 39.8% of the variation in purchase decision is explained by the price of fertilizer**.**

The significance value (p-value) is 0.000**,** which is less than 0.05, confirming that the relationship is statistically significant.

The unstandardized beta coefficient is 2.749, with a highly significant t-value of 8.012and p-value of 0.000**,** confirming that the price of fertilizer is a strong predictor of purchase decision.

**Interpretation :**

There is a moderate to strong positive correlation between the price of fertilizer and purchase decisions. The significant p-value (0.000) confirms the relationship. The beta coefficient of 2.749 indicates that as the price of fertilizer increases, the purchase decision score also increases. With 39.8% of variance explained, fertilizer price plays a meaningful role, though-other factors also contribute to purchase decisions.

**Brand-image and awareness**

| Model Summary | | | | |
|---|---|---|---|---|
| Model | R | R Square | Adjusted R-Square | Std. Error of the-Estimate |
| 1 | .559[a] | .313 | .306 | 1.98967 |
| a. Predictors: (Constant), BrandImageAndAwareness | | | | |

| ANOVA | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Sum of -Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 176.788 | 1 | 176.788 | 44.657 | .000[a] |
| | Residual | 387.962 | 98 | 3.959 | | |
| | Total | 564.750 | 99 | | | |
| a. Predictors: (Constant), BrandImageAndAwareness | | | | | | |
| b. Dependent Variable: Purchasedecision | | | | | | |

| Coefficients | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 5.664 | 1.537 | | 3.685 | .000 |
| | BrandImageAndAwareness | 2.526 | .378 | .559 | 6.683 | .000 |
| a. Dependent Variable: Purchasedecision | | | | | | |

**Analysis**

- The R value is 0.559, indicating moderate positive-correlation between brand image and awareness & purchase decision.
- The $R^2$ value is 0.313, meaning that 31.3% of the variation in purchase decision is explained by brand image and awareness**.**
- The significance value (p-value) is 0.000, which is less-than 0.05, confirming that the relationship is statistically significant.
- The unstandardized beta coefficient is 2.526, with a t-value of 6.683andp-value of 0.000, indicating that brand image and awareness is a strong and significant predictor of purchase decision.

**Interpretation**

There is moderate positive-correlation between brand image & awareness and purchase decisions. The significant p-value (0.000) confirms this relationship. The beta coefficient of 2.526 indicates that a one-unit increase in brand image and awareness leads to a 2.526-unit increase in purchase decision score. With 31.3% of the variance explained, brand perception plays an important-role in shaping consumer buying behavior, though other-factors also influence purchase decisions.

**Product Quality**

| Model-Summary | | | | |
|---|---|---|---|---|
| Model | R | R Square | Adjusted-R Square | Std. Error of the – Estimate |
| 1 | .364[a] | .133 | .124 | 2.23576 |
| a. Predictors: (Constant), ProductQuality | | | | |

| ANOVA | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Sum of Squares | df | Mean-Square | F | Sig. |
| 1 | Regression | 74.887 | 1 | 74.887 | 14.982 | .000[a] |
| | Residual | 489.863 | 98 | 4.999 | | |
| | Total | 564.750 | 99 | | | |
| a. Predictors: (Constant), ProductQuality | | | | | | |
| b. Dependent Variable: Purchasedecision | | | | | | |

| Coefficients | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Unstandardized - Coefficients | | Standardized -Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 12.052 | 1.006 | | 11.974 | .000 |
| | Product Quality | .930 | .240 | .364 | 3.871 | .000 |
| a. Dependent Variable: Purchasedecision | | | | | | |

**Analysis**

- The R value is 0.364, indicating a weak to moderate positive-correlation between product quality and purchase decision.
- The $R^2$ value is 0.133, meaning that 13.3% of the variation in purchase decision is explained by product quality**.**
- The significance value (p-value) is 0.000, which is less-than 0.05, confirming that the relationship is statistically significant.
- The unstandardized beta coefficient is 0.930**,** with at-value of 3.871andp-value of 0.000**,** confirming that product quality is a significant predictor of purchase decision.

**Interpretation**

There is weak to moderate positive correlation between-product quality and purchase decisions. The significant p-value (0.000) confirms this relationship. The beta coefficient of 0.930 indicates that a one-unit increase in product quality leads to a 0.930-unit increase in the purchase decision score. Although product quality explains only 13.3% of the variance, it remains an important factor, while other variables also significantly-influence consumer purchase behavior.

**Promotional Activities**

| Model Summary | | | | |
|---|---|---|---|---|
| Model | R | R-Square | Adjusted R-Square | Std. Error of the – Estimate |
| 1 | .287[a] | .083 | .073 | 2.29926 |
| a. Predictors: (Constant), PromotionalActivities | | | | |

| ANOVA | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Sum of - Squares | df | Mean-Square | F | Sig. |
| 1 | Regression | 46.664 | 1 | 46.664 | 8.827 | .004[a] |
| | Residual | 518.086 | 98 | 5.287 | | |
| | Total | 564.750 | 99 | | | |
| a. Predictors: (Constant), PromotionalActivities | | | | | | |
| b. Dependent Variable: Purchasedecision | | | | | | |

| Coefficients | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Unstandardized - Coefficients | | Standardized -Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 12.905 | 1.017 | | 12.684 | .000 |
| | PromotionalActivities | .192 | .065 | .287 | 2.971 | .004 |
| a. Dependent Variable: Purchasedecision | | | | | | |

**Analysis**

- The R value is 0.287, indicating a weak positive-correlation between promotional activities and purchase decision.
- The $R^2$ value is 0.083, meaning that 8.3% of the variation in purchase decision is explained by promotional activities**.**

- The significance value (p-value) is 0.004, which is less-than 0.05, confirming that the relationship is statistically significant.
- The unstandardized beta coefficient is 0.192**,** with at-value of 2.971andp-value of 0.004**,** indicating that promotional activities a positive but weak effect on purchase decision.

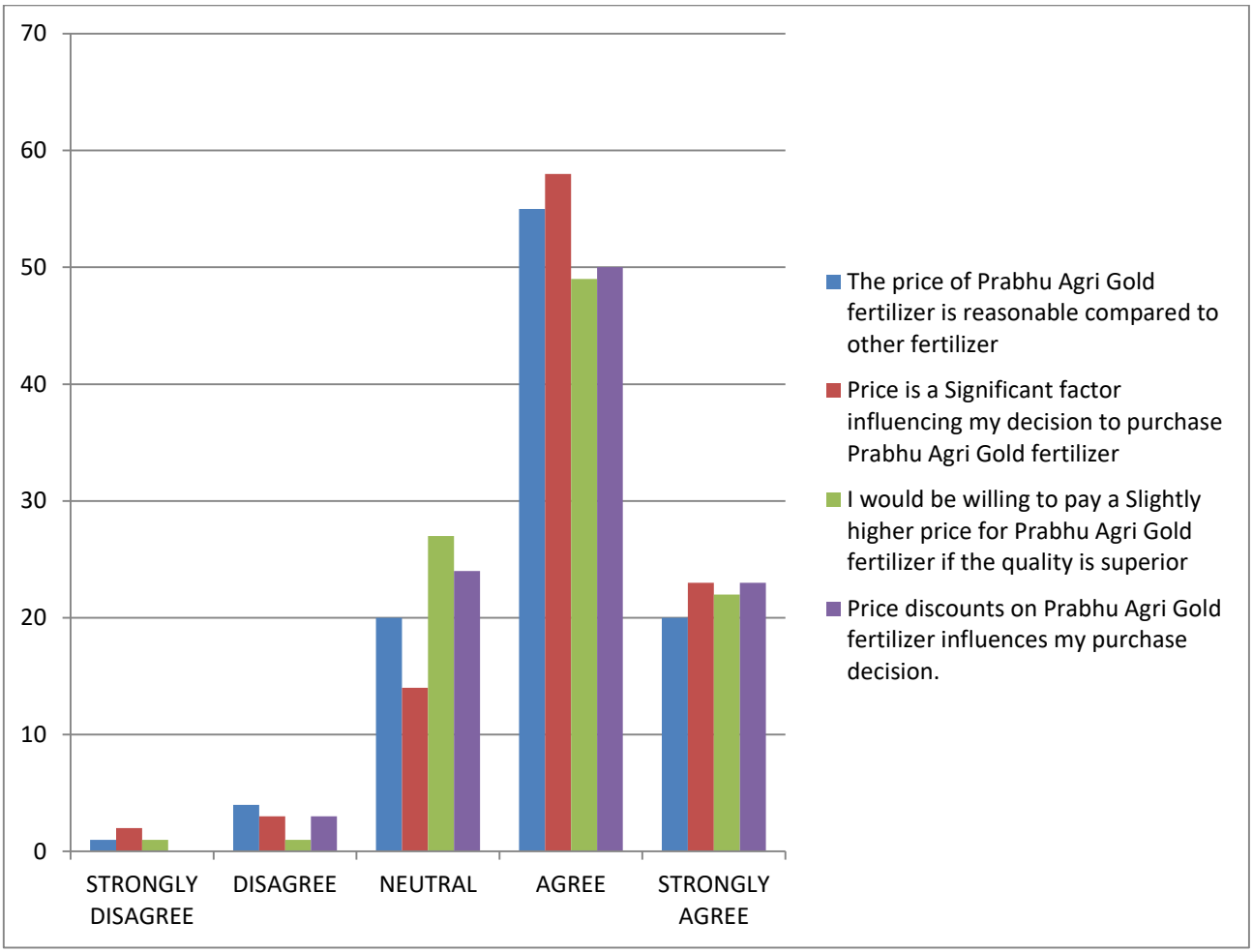
**Interpretation**

There is weak positive correlation between-promotional activities and purchase decisions. The significant p-value (0.004) confirms this relationship. The beta coefficient of 0.192 indicates that a one-unit increase in promotional activities leads to a 0.192-unit increase in the purchase decision score. With only 8.3% of the variance explained, promotional activities contribute to purchase decisions, but other factors play a larger role in influencing consumer behavior.

**Percentage**

**Price of Fertilizer**

| STATEMENT | STRONGLY DISAGREE | DISAGREE | NEUTRAL | AGREE | STRONGLY AGREE |
|---|---|---|---|---|---|
| The price of Prabhu Agri Gold fertilizer is reasonable compared to other fertilizer | 1 | 4 | 20 | 55 | 20 |
| Price is a Significant factor influencing my decision to purchase Prabhu Agri Gold fertilizer | 2 | 3 | 14 | 58 | 23 |
| I would be willing to pay a Slightly higher price for Prabhu Agri Gold fertilizer if the quality is superior | 1 | 1 | 27 | 49 | 22 |
| Price discounts on Prabhu Agri Gold fertilizer influences my purchase decision. | 0 | 3 | 24 | 50 | 23 |




**Analysis:**

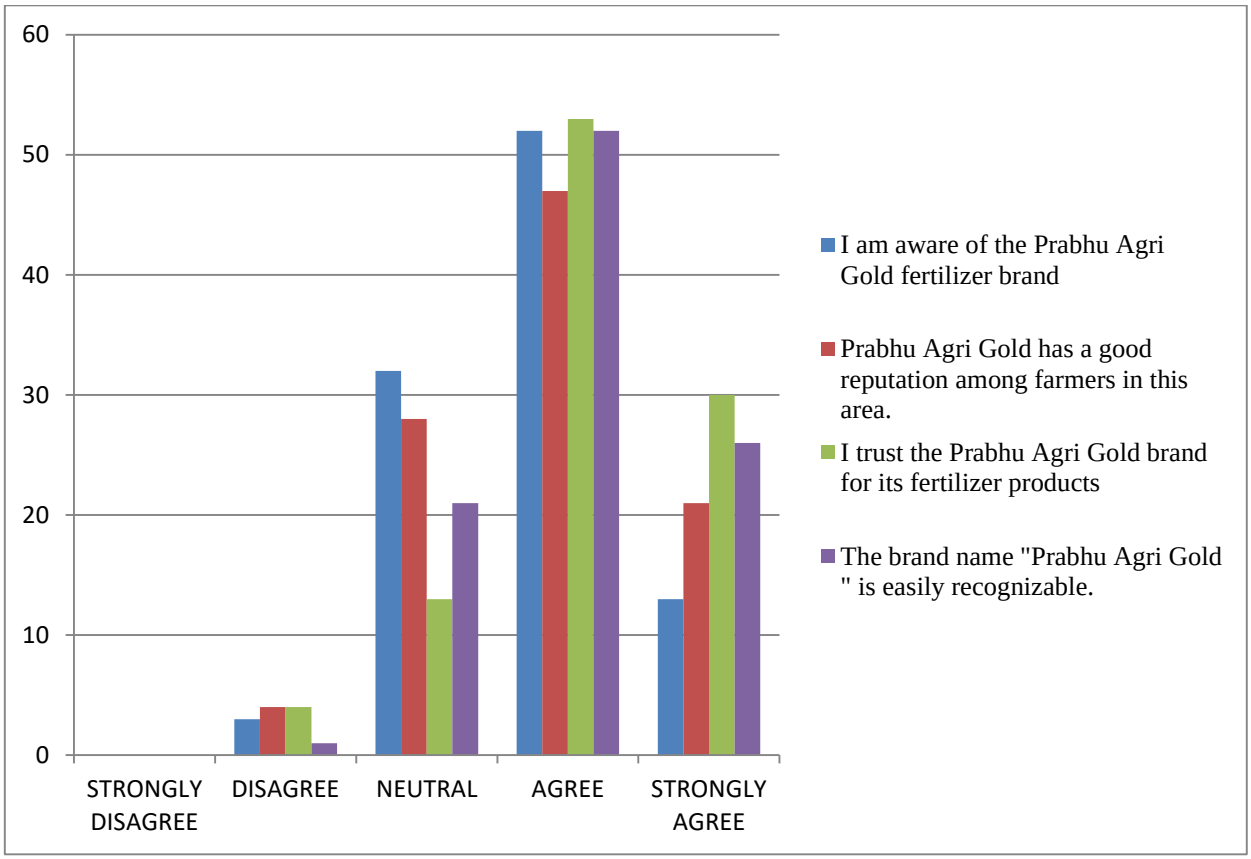
1. For the statement "The price of Prabhu Agri Gold fertilizer is reasonable compared to other fertilizers55 respondents agreedand 20 strongly agreed**,** while20 remained neutral**,** 4 disagreed**,** and 1 strongly disagreed.
2. For the statement Price is a significant factor influencing my decision to purchase Prabhu Agri Gold fertilizer58 agreedand23 strongly agreed**,** while14 were neutral**,** and only 5 disagreed/strongly disagreed**.**
3. Regarding Willingness to pay a slightly higher price if the quality is superior49agreedand 22 strongly agreed**,** while 27 were neutral**,** and just2 disagreed/strongly disagreed**.**
4. For "Price discounts influence my purchase decision",50 agreed and 23 stronglyagreed**,** while 24 were neutral, and only 3 disagreed with none strongly disagreeing.

**Interpretation**

Findings show that most-farmers consider the price of Prabhu Agri Gold fertilizer reasonable and view price as a key factor in their purchase decisions. However, many are also willing to pay slightly higher if quality is superior, indicating that product performance matters. Price discounts strongly influence buying behavior, showing that promotions play an important role. Overall, farmers are price-conscious but equally value quality and offers, which shape their purchasing choices.

**Brand Image and Awareness**

| STATMENT | STRONGLY DISAGREE | DISAGREE | NEUTRAL | AGREE | STRONGLY AGREE |
|---|---|---|---|---|---|
| I am aware of the Prabhu Agri Gold fertilizer brand | 0 | 3 | 32 | 52 | 13 |
| Prabhu Agri Gold has a good reputation among farmers in this area. | 0 | 4 | 28 | 47 | 21 |
| I trust the Prabhu Agri Gold brand for its fertilizer products | 0 | 4 | 13 | 53 | 30 |
| The brand name "Prabhu Agri Gold " is easily recognizable. | 0 | 1 | 21 | 52 | 26 |




**Analysis:**

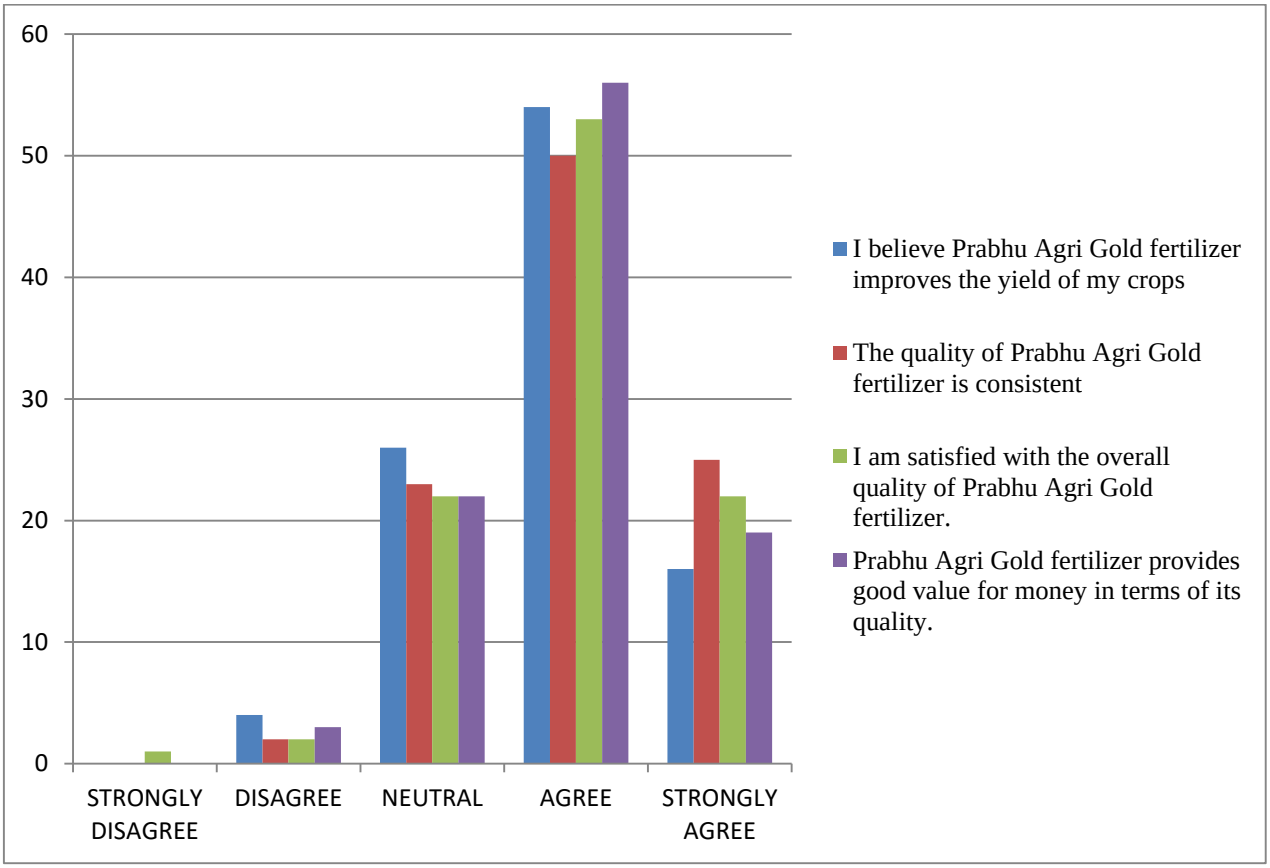
- Awareness of the Prabhu Agri Gold brand is high, with 65 respondents agreeing and strongly agreeing**,** while only 3 disagreed and 32 remained neutral, indicating widespread familiarity.
- The brand's reputation among farmers appears generally favorable, with 68 participantsagreeing or strongly agreeing**,** 28 neutral, and only 4 disagreeing.
- Trust in the brand is particularly strong, as 83 respondents agreed or strongly agreed**,** while only 4 disagreed and 13 were neutral, suggesting high confidence in the brand's products.
- The recognizability of the brand name is well established, with 78 respondents agreeing or strongly agreeing**,** only 1 disagreement, and 21 neutral, reflecting strong brand visibility.

**Interpretation:**

The data shows that Prabhu Agri Gold fertilizer has a well-established and trusted presence among the surveyed respondents. A large majority is aware of the brand, trust its products, and find its name easily recognizable. The positive perception of its reputation among farmers further strengthens its position in the market. However, a notable number of neutral responses—especially concerning brand awareness and reputation indicate there may be an opportunity to further improve brand communication and visibility. Targeted outreach and engagement strategies can help convert neutral respondents into brand advocates, enhancing overall market influence.

**Product Quality**

| STATMENT | STRONGLY DISAGREE | DISAGREE | NEUTRAL | AGREE | STRONGLY AGREE |
|---|---|---|---|---|---|
| I believe Prabhu Agri Gold fertilizer improves the yield of my crops | 0 | 4 | 26 | 54 | 16 |
| The quality of Prabhu Agri Gold fertilizer is consistent | 0 | 2 | 23 | 50 | 25 |
| I am satisfied with the overall quality of Prabhu Agri Gold fertilizer. | 1 | 2 | 22 | 53 | 22 |
| Prabhu Agri Gold fertilizer provides good-value for money in terms of its quality. | 0 | 3 | 22 | 56 | 19 |



**Analysis:**

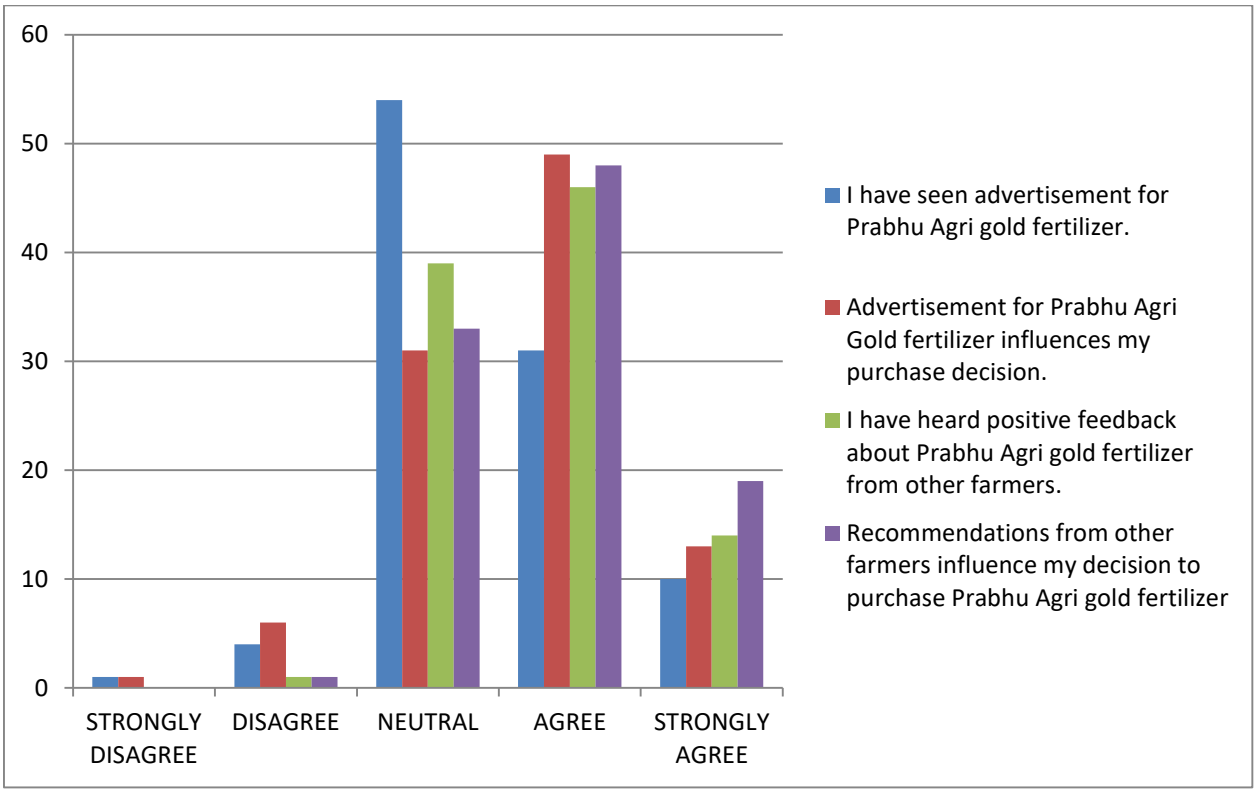
- Belief in yield improvement is strong, with 70 respondents agreeing or strongly agreeing, while only 4 disagreed and 26 were neutral, showing overall confidence in the product's effectiveness.
- Perception of consistent quality is also positive, with 75 respondents agreeing or strongly agreeing**,** 23 neutral, and only 2 disagreeing, indicating satisfaction with product reliability.
- Regarding overall quality satisfaction**,** 75 participants expressed agreement or strong agreement**,** while 22 were neutral and only 3 disagreed, reflecting a high level of approval.
- The view that the fertilizer offers-good value for money is widely supported, with **75** respondents agreeing or strongly agreeing**,** only 3 in disagreement, and 22 neutral, suggesting perceived economic benefit.

**Interpretation:**

The responses indicate that most users  a positive perception of Prabhu Agri Goldfertilizerin terms of effectiveness, quality, and value. A large majority believe the fertilizer improves crop yield and consistently delivers high quality. Satisfaction levels are also high when it comes to overall product quality and perceived value for money. Although a small number of respondents remain neutral, the data clearly reflects strong user trust and acceptance, positioning the product as a reliable and cost-effective option in the agricultural market. To further boost user confidence, the brand may focus on converting neutral opinions through demonstrations, testimonials, or performance-based promotions.

**Promotional Activities**

| STATMENT | STRONGLY DISAGREE | DISAGREE | NEUTRAL | AGREE | STRONGLY AGREE |
|---|---|---|---|---|---|
| I have seen advertisement for Prabhu Agri gold fertilizer. | 1 | 4 | 54 | 31 | 10 |
| Advertisement for Prabhu Agri Gold fertilizer influences my purchase decision. | 1 | 6 | 31 | 49 | 13 |
| I  heard positive feedback about Prabhu Agri gold fertilizer from other farmers. | 0 | 1 | 39 | 46 | 14 |
| Recommendations from other farmers influence my decision to purchase Prabhu Agri gold fertilizer | 0 | 1 | 33 | 48 | 19 |




**Analysis:**

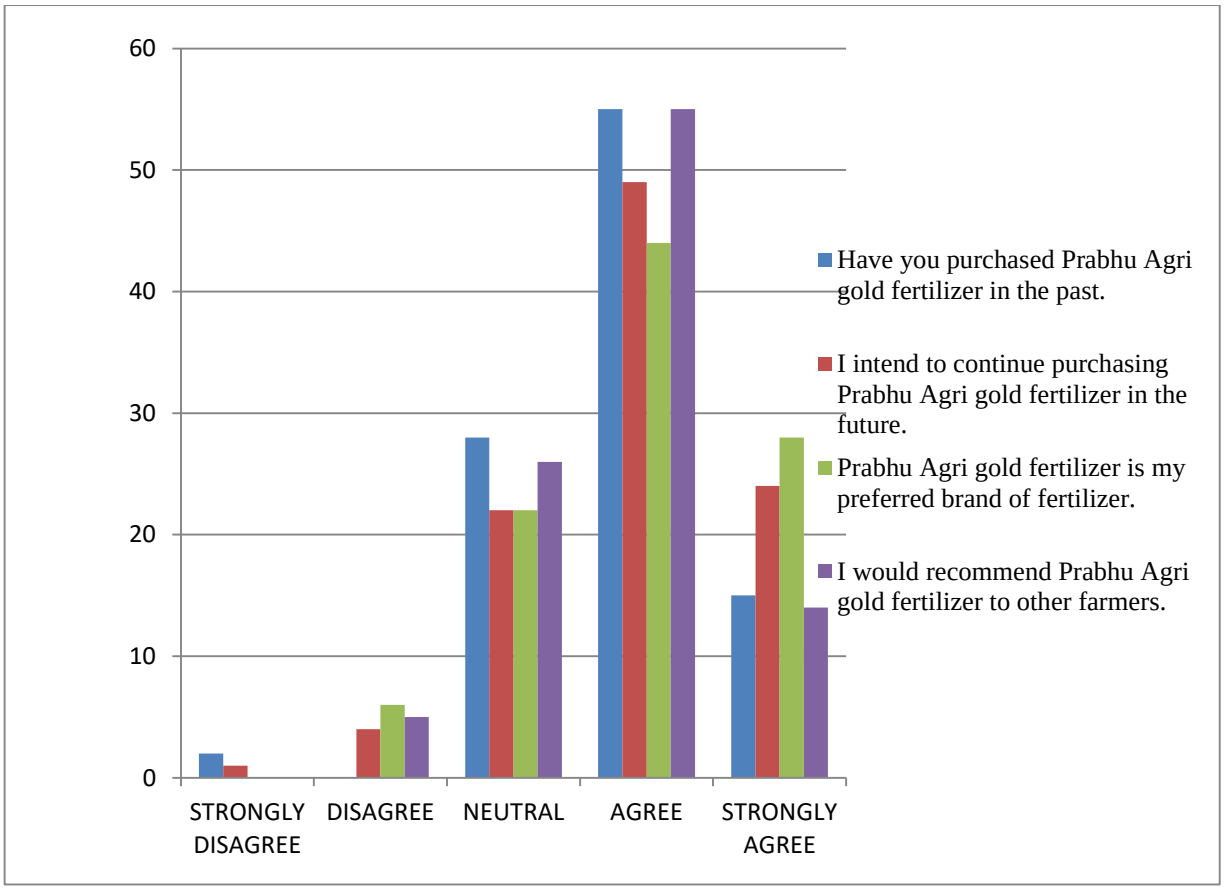
- Total of 41 respondents agreed or strongly agreed that they seen advertisements for Prabhu Agri Gold fertilizer, while 54 remained neutral and only 5 disagreed, indicating limited advertisement recall among many.
- Advertisement appears to influence purchase decisions for 62 respondents who agreed or strongly agreed, while 31 remained neutral and only 7 disagreed, suggesting a moderate advertising impact.
- Positive feedback from other farmers is a common experience, with 60 respondents agreeing or strongly agreeing and 39 neutral, showing that peer opinions are widely encountered.
- Farmer recommendations play role in purchase decisions, as 67 respondents agreed or strongly-agreed, 33 remained neutral, and only 1 disagreed, reflecting the strong influence of word-of-mouth.

**Interpretation:**

The data indicates that word-of-mouth marketing has a stronger impact on purchase decisions than advertisements for Prabhu Agri Gold fertilizer. While a portion of respondents recalled seeing advertisements, many were neutral, showing moderate exposure or effectiveness of the campaigns. However, feedback and recommendations from fellow farmers are both commonly experienced and highly influential in shaping purchase behavior. This suggests that the brand could benefit from strengthening peer-led promotions, testimonials, and community-based marketing strategies to further enhance credibility and reach within the farming community.

**Purchase Decision (Dependent Variable)**

| STATMENT | STRONGLY DISAGREE | DISAGREE | NEUTRAL | AGREE | STRONGLY AGREE |
|---|---|---|---|---|---|
| Have you purchased Prabhu Agri gold fertilizer in the past. | 2 | 0 | 28 | 55 | 15 |
| I intend to continue purchasing Prabhu Agri gold fertilizer in the future. | 1 | 4 | 22 | 49 | 24 |
| Prabhu Agri gold fertilizer is my preferred brand of fertilizer. | 0 | 6 | 22 | 44 | 28 |
| I would recommend Prabhu Agri gold fertilizer to other farmers. | 0 | 5 | 26 | 55 | 14 |



**Analysis:**

- Past purchase behavior is strong, with 70 respondents agreeing or strongly-agreeing that they have purchased Prabhu Agri Gold fertilizer, 28 neutral, and only 2 strongly disagreeing, indicating wide product usage.
- Future purchase intent is high, with 73 participants agreeing or strongly agreeing, 22 neutral, and only 5 disagreeing, reflecting continued trust in the brand.
- Brand preference is clear, as 72 respondents agreed or strongly-agreed that Prabhu Agri Gold is their preferred fertilizer, while 22 were neutral and 6 disagreed.
- Willingness to recommend the product is also high, with 69 agreeing or strongly agreeing, 26 neutral, and 5 in disagreement, showing strong advocacy potential among current users.

**Interpretation:**

The findings show that Prabhu Agri Gold fertilizer enjoys strong customer loyalty and satisfaction**.** Significant majorities has purchased the product in the past and intend to continue doing so. Many also identify it as their preferred brand and express a willingness to recommend it to others, which is a key indicator of customer confidence. The relatively low number of disagreements and consistent positive responses suggest that the brand has built a loyal user base with high trust and positive perception. To maintain this momentum, the brand can focus on engaging neutral customers through loyalty programs, after-sales service, or success stories from existing users.

**Findings**

1) Consumer preference for Prabhu Agri Gold Fertilizer in Bagalkot District is driven by affordability, dealer availability, brand trust, product quality, limited awareness, and growing demand for sustainable solutions.
2) Most farmers think the price of the fertilizer is very important. Many also like getting discounts. And reasonable in price.
3) Most people know the brand and trust on its reputation. The name is also easy to recognize.
4) Many farmers feel that the fertilizer helps improve their crop yield and is worth the money.
5) Advertisements and suggestions from other farmers influence buying decisions.
6) Age affects buying decisions, but other things like gender, income, and education do not.
7) Most farmers are happy with the fertilizer, want to buy it again, and would recommend it to others.
8) Most farmers are young, aged between 25–35 years.
9) Many respondents have basic-education, which may-affect how they understand product details.
10) Most farmers own small land holdings, which may limit their budget and fertilizer use.

**Suggestions**

1. Prabhu Agri Gold Fertilizer should improve product quality, expand its dealer network, invest in farmer awareness programs, and emphasize its eco-friendly benefits to strengthen market acceptance in Bagalkot District.
2. Give offers and discounts to attract more farmers (Field Experiments)
3. Share real success stories and show how the fertilizer helps crops grow better.
4. Focus more on young farmers, as they buy the most.
5. Ask happy customers to tell others-about their good experience.
6. Take part in local fairs and farmer events to make the brand even more popular.
7. Improve packaging design to make product stand out on shelf.
8. Use social media and WhatsApp groups to connect with tech-savvy farmers.
9. Offer free samples or trial packs to new customers.
10. Provide training or demos to show the correct way to use the fertilizer.

**Conclusion**

Prabhu Agri Gold Fertilizer is popular among farmers in Bagalkot District. Most customers mention affordable prices, strong trust in the brand, and better crop yields as the main reasons for their choice. The fertilizer's success in the market mainly comes from positive product features, effective promotions, dealer availability, and brand recognition. Statistical-analysis shows that age is only-demographic factor that affects purchasing decisions. To improve its market position and reach, the brand should focus on improving quality, expanding dealer networks, launching effective awareness campaigns, and creating targeted offers for young farmers. This can be done through traditional field activities.The analysis further reveals that demographic-factors such as age significantly affect purchasing decisions, with younger farmers showing greater openness to trying new products and offers compared to older farmers who rely more on experience and trust. To sustain and improve its competitive position, Prabhu Agri Gold Fertilizer should focus on enhancing product quality, ensuring timely availability through an expanded dealer network, and introducing awareness campaigns that demonstrate its benefits clearly to farmers. Moreover, designing targeted promotional schemes for younger farmers, organizing traditional field demonstrations, and strengthening farmer–dealer relationships can further improve acceptance and satisfaction.

In conclusion, while Prabhu Agri Gold Fertilizer is already a trusted brand, continuous innovation, improved communication strategies, and farmer-centric initiatives will help company capture a larger share of the fertilizer market in Bagalkot District and ensure long-term growth.