

Study on Demand of Banana Powder at Nanded City Maharashtra

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Abstract: *This study looks at the banana powder industry in Nanded, Maharashtra. It examines its size, how businesses get their supplies, the demand in the market, pricing concerns, uses of the product, problems in buying ingredients, and methods to ensure quality. The findings show that the industry has potential to grow but also faces challenges. There are ways to improve through better marketing, sourcing from local farmers, and making the product stand out more. To make the introduction stronger, you could explain why the banana powder industry is important to study. For instance, you could mention how the area's farming methods, local economy, and new market needs all come together to create both opportunities and difficulties for this business. Such details would provide more depth and a clearer picture of the topic.*

Keywords: demand in the market

I. INTRODUCTION

The banana powder industry in Nanded stands at the confluence of traditional agricultural processes and modern food technology innovations. Renowned for its diverse applications—from nutritional supplements and natural flavourings to cosmetic ingredients—banana powder is increasingly in demand as consumers turn toward natural and multifunctional products. This paper explores the industry's current status by examining its operational scale, sourcing strategies, consumer awareness levels, pricing dynamics, and quality standards. By identifying the challenges that hinder growth and the opportunities that lie ahead, the study aims to provide actionable insights that can drive sustainable expansion and elevate the industry's market prominence. This version not only highlights the industry's versatile uses but also contextualizes the economic and technological drivers behind its development. Additionally, it frames the analysis in a way that invites the reader to consider both the potential and the pitfalls of market growth. For further enhancement, you might consider integrating specific trends or data points related to production volume, market growth rates, or consumer behavior patterns in your subsequent sections.

III. OBJECTIVES OF RESEARCH

- To assess current market demand of banana powder in Nanded, Maharashtra
- To identify consumer preference of banana powder in Nanded, Maharashtra
- To analyse purchasing behaviour of banana powder in Nanded, Maharashtra
- To explore pricing sensitivity of banana powder in Nanded, Maharashtra

III. LITERATURE REVIEW

1. Dr. Pradhan Gupta (2020) - Exploring the Applications and Benefits of Banana Powder This research examines the diverse applications and benefits of banana powder across industries. Factors such as nutritional value, medicinal properties, and industrial uses are evaluated to highlight its significance. The study emphasizes banana powder's role in enhancing food sustainability and reducing waste. Recommendations include optimizing production and expanding applications in the food and pharmaceutical sectors.



2. Prof. Ramanand Verma (2021) - Investigating the Nutritional Value of Banana Powder This study explores the nutritional profile of banana powder, focusing on its high potassium, dietary fibre, and essential vitamin content. It assesses its role as a functional ingredient in food products and its potential health benefits, including improved digestion and heart health. Recommendations suggest incorporating banana powder into diverse dietary applications to enhance public health.

3. Dr. Khan Ahmed & Patel Suras (2019) - Industrial Applications of Banana Powder This research analyses the industrial uses of banana powder, focusing on applications in the food and pharmaceutical sectors. It highlights usage in gluten-free products, baby food, and as a natural flavouring agent. The importance of starch content in product development is underscored, with methods suggested to increase its commercial value.

4. Prof. Das Roy (2023) - Sustainability and Waste Reduction through Banana Powder Production . This study evaluates the sustainability of banana powder production, emphasizing the use of overripe bananas to reduce food waste. Byproducts such as peels and stems are examined for potential applications in biofuels and fertilizers. Recommendations focus on improving production efficiency and reducing the environmental impact of banana cultivation.

5. Suresh Mehta (2022) - Medicinal Properties of Banana Powder: A Comprehensive Review. This research delves into the medicinal applications of banana powder, emphasizing its antioxidant and anti-inflammatory properties. The study highlights its potential role in managing gastrointestinal disorders and supporting immune health. Recommendations include further exploration of its therapeutic use in chronic disease management.

6. Chaudhary Singh Ravat (2021) - Role of Banana Powder in Food Innovation. This study investigates the incorporation of banana powder in modern food products, such as gluten-free snacks, energy bars, and baked goods. It highlights its functional properties like natural sweetness and high starch content, appealing to health-conscious consumers. Suggestions are made to expand its use in innovative food processing techniques.

7. Gupta Das (2020) - Exploring Banana Powder as a Prebiotic Ingredient This research examines the prebiotic benefits of banana powder, attributing its positive effects on gut health to its high fibre content. It explores its role in promoting the growth of beneficial gut bacteria and improving digestive health. Recommendations are provided for enhancing its inclusion in probiotics and other functional foods.

8. Patel Suraj (2018) - Economic and Environmental Impact of Banana Powder Production This study evaluates the economic feasibility of banana powder production, especially in regions with significant banana cultivation. It highlights environmental benefits such as food waste reduction and byproduct utilization for eco-friendly innovations. Strategies for sustainable and economically beneficial production are suggested.

9. Prof. Yaman Reddy (2017) - Antioxidant Properties of Banana Powder: Potential Applications This study focuses on the antioxidant components of banana powder, such as phenolic compounds and flavonoids. It discusses their potential in preventing oxidative stress-related disorders, including cardiovascular diseases and neurodegenerative conditions. Recommendations for further integration into functional health products are included.

10. Prof. Priy Kumar Sharma (2021) - Banana Powder in Gluten-Free Food Formulations This research highlights the demand for banana powder in gluten-free food products due to its high starch content and natural sweetness. It analyses its role in improving the texture, flavour, and nutritional profile of gluten-free baked goods. Recommendations focus on optimizing formulations for greater consumer acceptance.

11. Sham Chandra H. (2022) - Comparative Analysis of Banana Powder Processing Methods This study compares methods for producing banana powder, including sun drying, spray drying, and freeze drying. It examines their impact on nutritional quality, colour, and texture. Recommendations include adopting advanced technologies to improve product quality.

IV. RESEARCH METHODOLOGY

In this research, the methodology section indicates that how conduct the research. This includes data collected from organization of banana powder manufactural and Deller , sample of study and methods cover in primary research. So, we mention below the detail information about it.



Primary data: The data is collected by the survey method. The survey has been done through questionnaire by Google form.

Secondary data: The sources of secondary data are articles, research paper and online sites, websites.

Sample size: The sample size for this research is 100 organization of banana powder manufactural and Deller

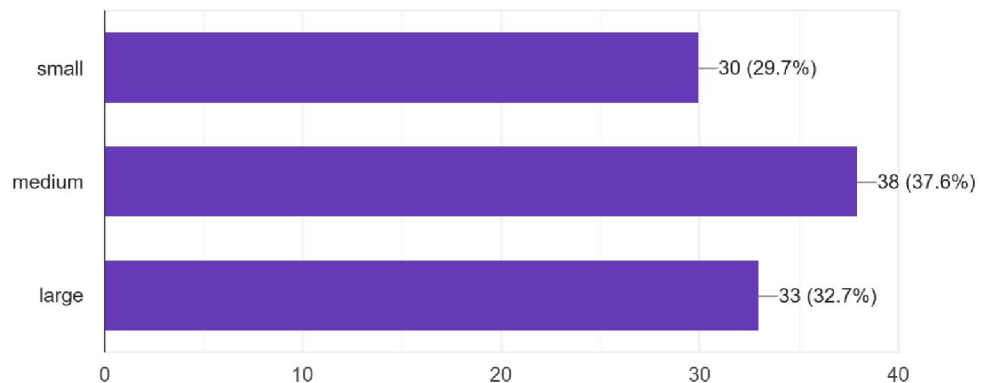
Sampling method: The method is simple random sampling by considering the responses from Nanded and all Maharashtra sate only.

Statistical tools used for analysis: Graphical method and percentage method have been using for analysis data.

V. ANALYSIS OF DATA

What is the scale of your organization's operations in the manufacturing of banana powder?

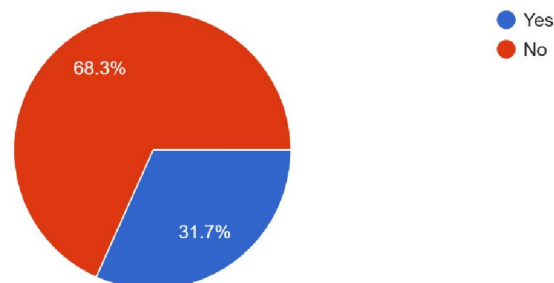
101 responses



The chart reveals that most organizations in the banana powder manufacturing industry operate on a medium scale, accounting for 37.6% of the sample. Large-scale and small-scale operations follow closely at 32.7% and 29.7%, respectively. This balanced spread indicates a diverse industry landscape where medium-sized ventures slightly prevail yet significant activity occurs at both smaller and larger scales.

Is your organization sourcing raw materials locally from Nanded for its operations?

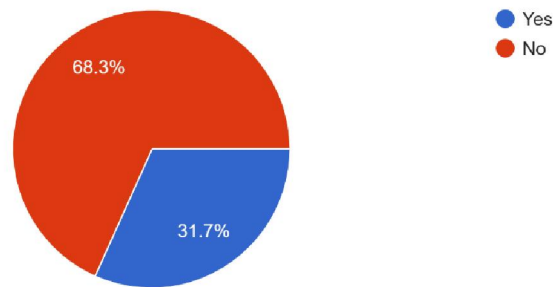
101 responses



The chart illustrates that a majority of organizations (68.3%) do not source their raw materials locally from Nanded, while 31.7% do. This suggests a significant reliance on external sources for raw materials, indicating potential supply chain dynamics or preferences influencing sourcing decisions.

Is your organization sourcing raw materials locally from Nanded for its operations?

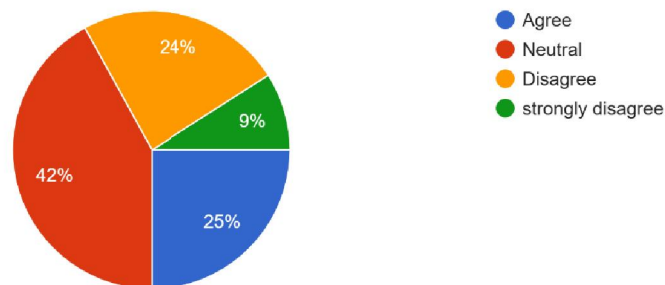
101 responses



The chart highlights that a significant majority (68.3%) of respondents' organizations do not source raw materials locally from Nanded, while only 31.7% do. This indicates a strong dependence on external sources for raw materials, which could influence operational costs and supply chain logistics.

Has the demand for banana powder in Nanded been increasing recently?

100 responses

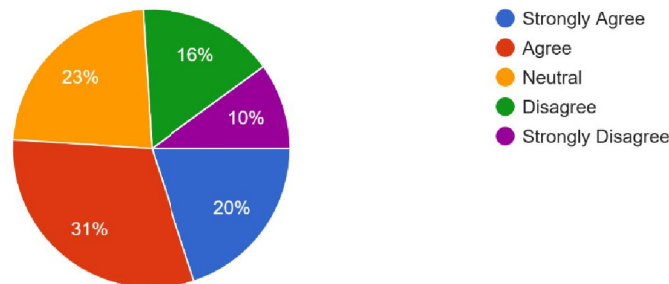


The chart shows mixed opinions on whether the demand for banana powder in Nanded has been increasing. While 25% agree and 24% remain neutral, a significant portion—42%—disagree, and 9% strongly disagree. This suggests that most respondents do not perceive a growing demand, reflecting skepticism in the market trends.



Has consumer awareness regarding the benefits of banana powder been growing recently?

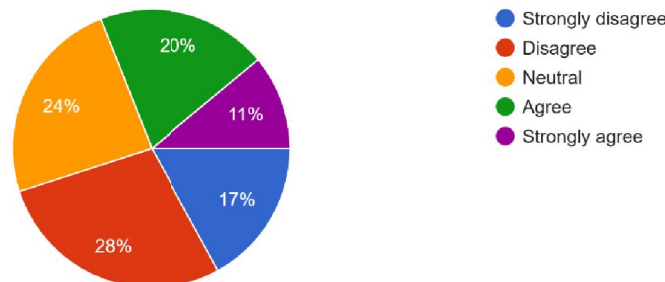
100 responses



The pie chart shows that consumer awareness regarding the benefits of banana powder has been growing recently for many. 51% of respondents agree or strongly agree, suggesting a positive trend. However, 23% remain neutral, and 26% disagree or strongly disagree, indicating room for more outreach and education.

Is banana powder a cost-effective product compared to other alternatives available in the market?

100 responses

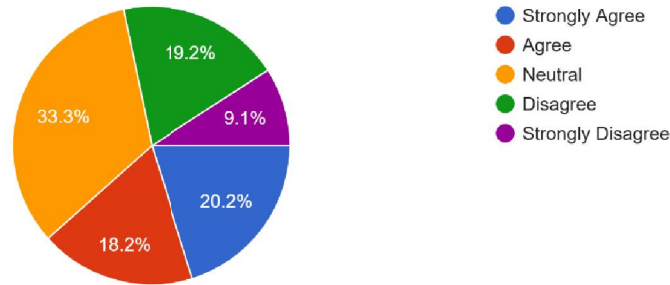


The pie chart presents diverse opinions on the cost-effectiveness of banana powder compared to other market alternatives. The majority of respondents are skeptical, with 28% disagreeing and 17% strongly disagreeing, summing up to 45%. A notable proportion, 24%, remain neutral, suggesting some ambiguity or uncertainty. Meanwhile, 31% show positive sentiment, with 20% agreeing and 11% strongly agreeing. This mixed feedback highlights varying perspectives on banana powder's value proposition, indicating room for further clarity or improvement in consumer perception.



Is sourcing raw materials, such as bananas, locally in Nanded both easy and reliable for your operations?

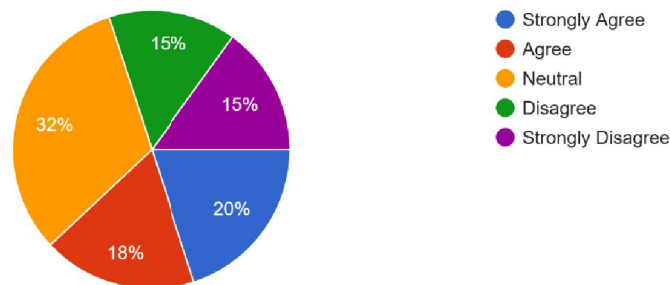
99 responses



The pie chart illustrates mixed perspectives on the ease and reliability of sourcing local raw materials, such as bananas, in Nanded. While 20.2% strongly agree and 18.2% agree, suggesting favorable conditions for some, a significant portion—33.3% disagree and 9.1% strongly disagree—points to notable challenges. Additionally, 19.2% remain neutral, indicating ambivalence or diverse operational experiences within the region.

Are there sufficient suppliers and distributors for banana powder in Nanded to fulfil your requirement

100 responses

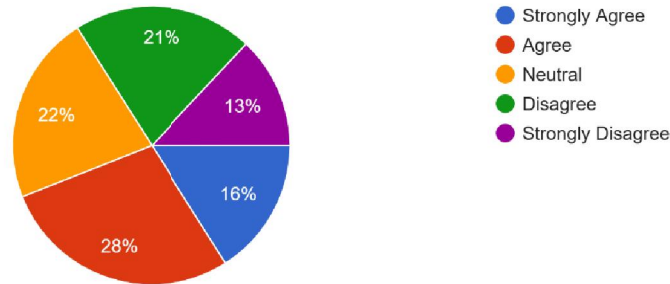


The pie chart reveals varied perspectives on the adequacy of banana powder suppliers and distributors in Nanded. While 38% of respondents strongly agree or agree, indicating sufficient resources for some, a significant 47% disagree or strongly disagree, highlighting potential challenges or gaps in distribution channels. Additionally, 15% remain neutral, suggesting mixed or unclear experiences regarding the availability of suppliers. This points to diverse satisfaction levels within the local industry.



Does substitute from other manufacturers affect the sales of banana powder?

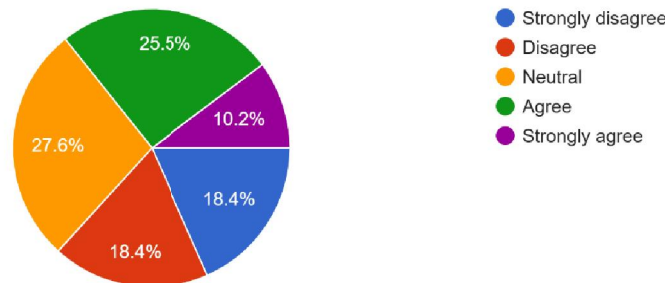
100 responses



The pie chart illustrates the impact of substitutes from other manufacturers on the sales of banana powder. A combined 44% of respondents (16% strongly agree and 28% agree) indicate that substitutes significantly affect sales, showing notable competition in the market. Meanwhile, 34% (21% disagree and 13% strongly disagree) believe substitutes do not have a major impact, suggesting confidence in their product's differentiation. The remaining 22% remain neutral, reflecting mixed or uncertain perspectives among the respondents.

Does the price of banana powder play a significant role in influencing purchase decisions?

98 responses

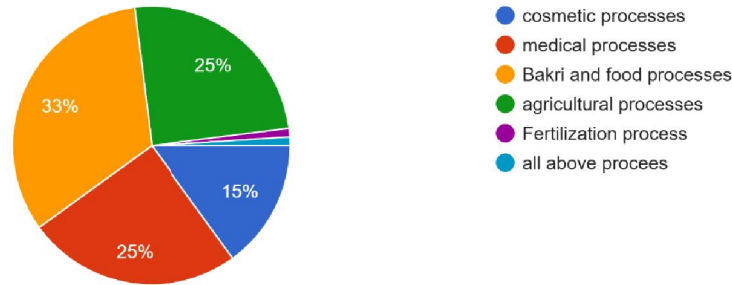


The pie chart reveals diverse opinions about the role of banana powder's price in influencing purchase decisions. While a significant 35.7% of respondents (18.4% strongly disagree and 18.4% disagree) indicate price isn't a major factor, 35.7% (25.5% agree and 10.2% strongly agree) believe it plays a key role. Meanwhile, 27.6% remain neutral, reflecting uncertainty or mixed perceptions among the respondents. This highlights differing consumer priorities and suggests price sensitivity varies across the market.



What are the applications and functions of banana powder within your company's manufacturing processes?

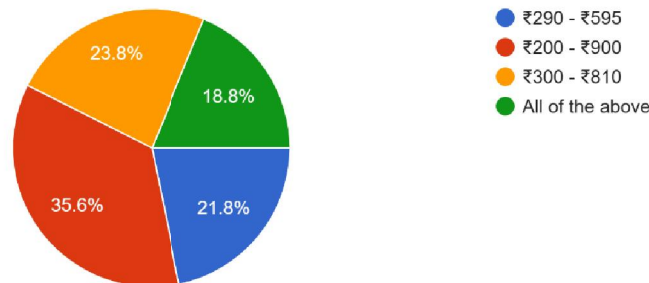
100 responses



The pie chart shows the diverse applications of banana powder in manufacturing processes. The largest segment (33%) is dedicated to bakery and food processes, highlighting its primary use. Medical and agricultural processes each account for 25%, reflecting significant contributions to these industries. Cosmetic processes represent 15% of the applications, while fertilization and multi-purpose use are minimal, each occupying less than 1%. This distribution emphasizes the versatility of banana powder across various sectors.

What is the standard purchasing price per kilogram of banana powder?

101 responses

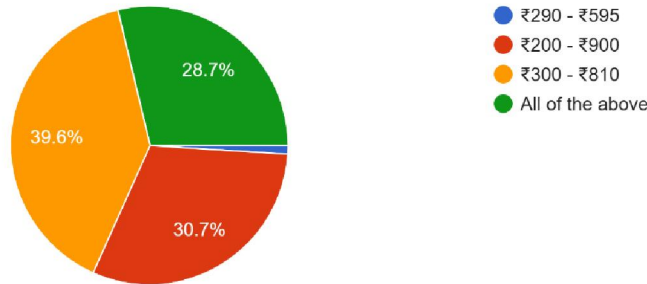


The pie chart highlights the variation in the standard purchasing price per kilogram of banana powder based on 101 responses. The price range of ₹200–₹900 is the most common, chosen by 35.6% of respondents, followed by ₹300–₹810 with 23.8%. The ₹290–₹595 range accounts for 21.8%, while 18.8% consider all the given ranges applicable. This indicates significant price variability in the market.



What is the standard selling price per kilogram of banana powder?

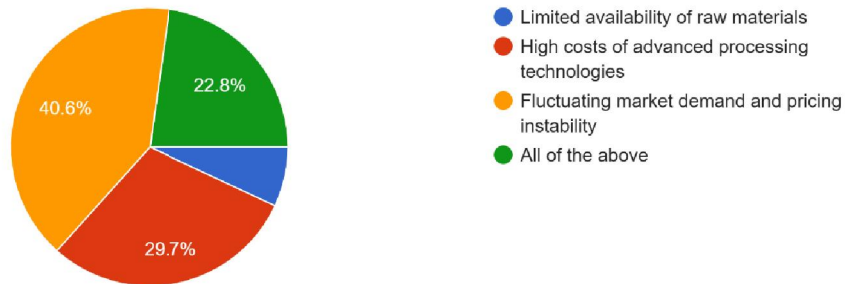
101 responses



The pie chart shows varying perspectives on the standard selling price per kilogram of banana powder based on 101 responses. The most preferred range, ₹300–₹810, accounts for 39.6% of responses, followed by ₹200–₹900 with 30.7%. Additionally, 28.7% of respondents consider all the given price ranges as applicable. Interestingly, no responses were recorded for ₹290–₹595, indicating preferences for broader or more specific price ranges in the market.

What are the primary challenges in the production of banana powder?

101 responses

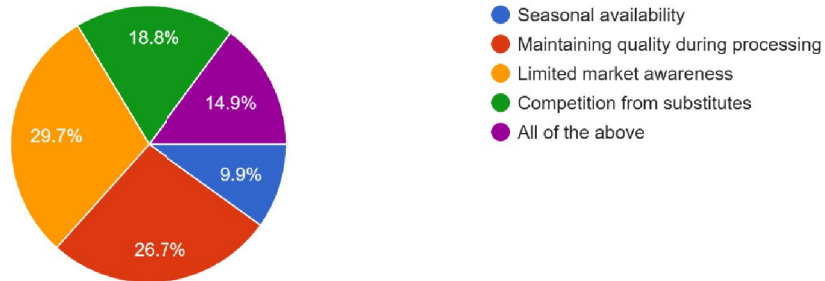


The pie chart highlights the primary challenges faced in banana powder production based on 101 responses. The biggest issue, cited by 40.6%, is fluctuating market demand and pricing instability, showing its significant influence on the industry. High costs of advanced processing technologies follow at 29.7%, reflecting financial constraints for many. Additionally, 22.8% of respondents point to limited availability of raw materials, while another 22.8% consider all these challenges collectively impactful. This illustrates a complex and multifaceted industry landscape.



What are the primary challenges in the procurement of banana powder?

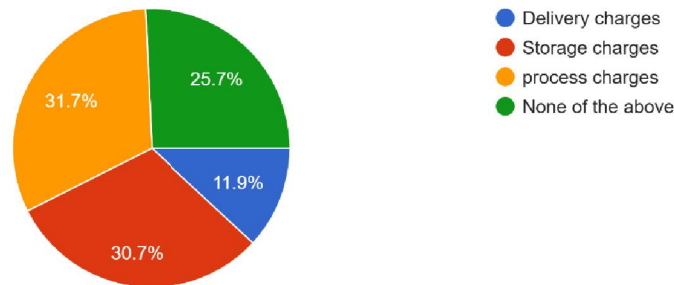
101 responses



The pie chart outlines the primary challenges in the procurement of banana powder. Limited market awareness emerges as the top issue, with 29.7% of respondents identifying it as significant. Maintaining quality during processing follows at 26.7%, while competition from substitutes accounts for 18.8%. Seasonal availability impacts 9.9%, and 14.9% of respondents consider all these challenges collectively important. This indicates diverse hurdles in procurement, with market awareness and quality maintenance being critical concerns.

What additional charges may apply apart from the price per kilogram?

101 responses

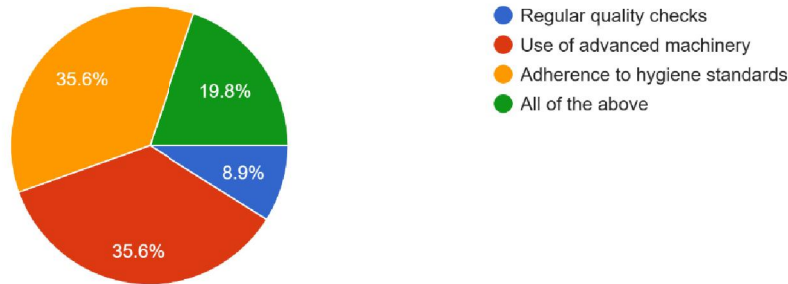


The pie chart highlights the distribution of additional charges apart from the price per kilogram of banana powder. Processing charges (31.7%) and storage charges (30.7%) are the most common, showing significant operational costs. Delivery charges account for 11.9%, reflecting logistical expenses. Interestingly, 25.7% of respondents indicate no additional charges, suggesting variability in cost structures across businesses. This emphasizes the diverse factors influencing overall pricing.



What measures are taken to ensure the quality of banana powder Purchase ?

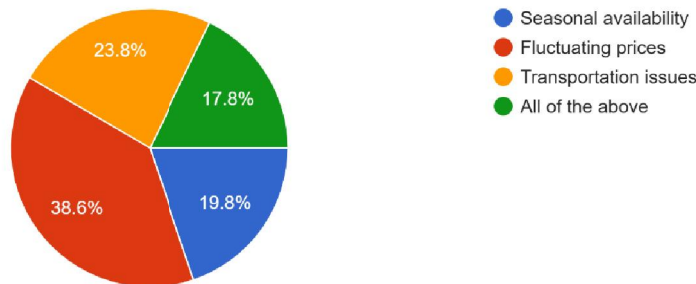
101 responses



The pie chart highlights measures taken to ensure the quality of banana powder purchases among 101 responses. Regular quality checks account for 8.9%, reflecting limited adoption. A significant portion—35.6%—indicates the use of advanced machinery, and another 35.6% highlights adherence to hygiene standards. Additionally, 19.8% of respondents prioritize all these measures collectively. This distribution emphasizes the importance of machinery and hygiene in maintaining quality standards, while some opt for a comprehensive approach.

What challenges does your company face in sourcing high-quality bananas powder.

101 responses



The pie chart identifies the key challenges faced by companies in sourcing high-quality banana powder. Transportation issues dominate, as cited by 38.6% of respondents, making it the most critical challenge. Fluctuating prices follow at 23.8%, highlighting market instability. Seasonal availability is a concern for 19.8%, while 17.8% of respondents consider all these factors collectively impactful. This emphasizes the multifaceted nature of sourcing challenges in the industry

VI. FINDINGS

Finding 1: Industry Scale and Operations

Medium-scale enterprises account for 37.6%, large-scale for 32.7%, and small-scale for 29.7%, indicating a balanced industry structure that allows both established players and emerging businesses to thrive.

Finding 2: Sourcing of Raw Materials

A significant 68.3% of organizations depend on external sources compared to only 31.7% relying on local sourcing in Nanded, which may expose the industry to supply chain challenges, increased costs, and potential delays.



Finding 3: Market Demand and Consumer Awareness

While 42% of respondents indicate no perceived growth in market demand, 51% recognize an improvement in consumer awareness, suggesting a gap where enhanced marketing efforts could convert awareness into actual demand.

Finding 4: Price Sensitivity and Competition

With 35.7% of respondents emphasizing price as a key factor and 44% acknowledging the impact of substitute products, competitive pricing and robust product differentiation are essential to maintain market share.

Finding 5: Applications of Banana Powder

The product is versatile, finding its primary applications in the bakery and food sectors (33%), followed by equal contributions in agriculture (25%) and medical uses (25%), with cosmetics making up 15%, thereby highlighting its broad utility across sectors.

Finding 6: Procurement Challenges

Organizations face obstacles such as fluctuating prices (23.8%), seasonal availability (19.8%), and significant transportation difficulties (38.6%), which necessitate better logistical planning and strengthened supplier networks.

Finding 7: Quality Assurance

Emphasis is placed on advanced machinery and hygiene (both at 35.6%), yet only 8.9% conduct regular quality checks, pointing to a need for more rigorous quality assurance protocols to build consumer trust.

Finding 8: Additional Costs

Additional operational expenses are notable, with processing and storage charges impacting 31.7% and 30.7% of organizations respectively, while 25.7% report no extra charges, reflecting varied cost structures among businesses.

VII. LIMITATIONS OF THE STUDY

While the study provides valuable insights into the banana powder industry, it is not without its limitations:

Limited Geographic Focus: The study primarily focuses on the Nanded region, which may not reflect broader trends or challenges in other areas where banana powder is manufactured or consumed.

Small Sample Size: With responses limited to 101 participants, the data may not fully capture the diversity of opinions, practices, and challenges across the entire industry.

Subjectivity in Responses: Many findings rely on participant perceptions, such as market demand, quality assurance, and competition. These opinions may not always align with actual market data or industry statistics.

Insufficient Exploration of Factors: Some critical factors, such as environmental impacts, government policies, and technological advancements, are not deeply examined, limiting the study's scope.

Focus on Consumer Awareness: While consumer awareness is highlighted, the study does not sufficiently explore consumer preferences or satisfaction with banana powder products.

Pricing Variability: The study reflects significant price variability without delving into the factors influencing these price ranges, such as supply chain costs, processing technologies, or regional differences.

Seasonal and External Factors: The study acknowledges seasonal availability issues but does not explore their full implications on production and supply chain stability.

Data Representation Gaps: Certain aspects, such as the absence of responses in specific price ranges, suggest potential limitations in response accuracy or representation.

Addressing these limitations through a broader scope, larger sample size, and more objective market data could strengthen future research on the industry.



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