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Garlic Powder Manufacturing and Marketing in Bangalore: A Feasibility Study for the Bakery and Cafe Industry

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Abstract: This research paper examines the garlic powder manufacturing industry in India, focusing on market demand and consumer preferences in Bengaluru. Through quantitative surveys of 41 local businesses, including restaurants and bakeries, and secondary data analysis, the study reveals a robust demand for high-quality, organic garlic powder, driven by its convenience, shelf life, and culinary versatility. Key findings indicate a preference for organic products, competitive pricing within ₹200-₹500 per kg, and openness to locally sourced brands. The Indian garlic powder market is projected to grow at a CAGR of 5.8% over the next five years, supported by increasing processed food consumption. Recommendations include enhancing product quality, optimizing pricing, and improving packaging to strengthen market positioning. This study offers actionable insights for manufacturers aiming to capitalize on the expanding garlic powder market.

INTRODUCTION

Garlic (Allium sativum) is one of the most widely used spices across the globe, valued for its distinct flavor, medicinal properties, and versatility in culinary applications. With the increasing demand for convenience and longer shelf-life in food products, garlic powder has emerged as a widely used alternative to fresh garlic. Garlic powder is produced through a meticulous process of dehydration and grinding, ensuring that its essential nutrients and flavors remain intact. The growing popularity of garlic powder in various industries, including food processing, pharmaceuticals, and cosmetics, has made it a lucrative business opportunity. This research paper explores the manufacturing of garlic powder and its market demand, particularly focusing on the Indian market, with specific insights into Bengaluru's consumer base.

Our startup, Ajo, is dedicated to manufacturing high-quality garlic powder that meets industry standards and caters to the growing market demand. Ajo aims to position itself as a leading manufacturer by leveraging advanced processing techniques, sustainable sourcing, and strategic market penetration. As consumer preferences shift towards ready-to-use and health-oriented food products, garlic powder has become an essential ingredient in households, restaurants, and large-scale food production units. Furthermore, its applications extend beyond the food industry, finding use in pharmaceuticals for its medicinal properties and in cosmetics for its antimicrobial benefits.
The Indian market for garlic powder is experiencing significant growth due to changing dietary habits, increasing fast-food consumption, and a surge in packaged food production. Bengaluru, known for its diverse food culture and rapid urbanization, presents a strong demand for garlic powder among hotels, restaurants, food processing companies, and health-conscious consumers. According to industry reports, the garlic powder market in India is projected to grow at a CAGR of 5.8% over the next five years, driven by increased usage in the processed food industry and rising awareness of its health benefits.

Garlic powder's primary advantage lies in its extended shelf life, ease of storage, and concentrated flavor, making it a preferred choice for both home cooks and large-scale food manufacturers. It eliminates the need for peeling and chopping, saving time and reducing wastage. Additionally, the medicinal properties of garlic, including its anti-inflammatory, antibacterial, and cardiovascular benefits, have positioned it as a valuable ingredient in the pharmaceutical industry. The cosmetics industry is also incorporating garlic extracts for skincare and haircare products, further expanding its market potential.

Ajo's strategic approach to manufacturing garlic powder focuses on quality assurance, efficient production processes, and targeted market distribution. The company sources premium garlic directly from farmers, ensuring freshness and sustainability. Advanced dehydration techniques and automated grinding processes help maintain the product's

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nutritional integrity while achieving cost efficiency. Ajo also emphasizes hygienic packaging and adherence to food safety regulations, enhancing its credibility in the market.

Looking ahead, the future demand for garlic powder is expected to rise further, with increased penetration in the health and wellness industry. As consumers become more health-conscious, the demand for functional foods incorporating natural ingredients such as garlic powder is likely to surge. Furthermore, technological advancements in food processing will enhance production efficiency and product quality, allowing manufacturers to scale up operations and meet the evolving needs of the market.

The manufacturing of garlic powder presents a highly promising business opportunity, given its widespread applications and growing consumer demand. Ajo, as a startup in this domain, is well-positioned to capitalize on this trend by ensuring superior product quality, strategic marketing, and efficient supply chain management. By addressing both domestic and industrial needs, Ajo aims to establish itself as a trusted brand in the garlic powder market, contributing to the ever-expanding food and health industries in India (Singh & Karmakar, 2024).

LITERATURE REVIEW

As the product market and rivals evolve over time, so does the FMCG's positioning and differentiation approach. A bell-shaped curve is used to depict the majority of Product Life Cycle curves. Usually, there are four steps to this curve: introduction. maturation, growth, and decline a product's life cycle consists of four assertions (Shades, 2021). Products have a finite lifespan; sales of products go through several phases, each of which presents unique opportunities, challenges, and issues for the seller; PLC profits fluctuate at different points in time; and products need different financial, manufacturing, purchasing, marketing, and human resource strategies at every stage of their life cycle (Yan et al., 2025). Garlic contains various bioactive compounds, including allicin, ajoene, and diallyl sulfides, which contribute to its medicinal properties. The extraction method significantly impacts the composition and stability of these compounds, with techniques such as steam distillation, solvent extraction, and maceration commonly employed. Studies highlight that particle size plays a crucial role, as smaller particles enhance enzyme activity and bioavailability but may accelerate compound degradation (Clark-Montoya et al., 2025). Research also suggests that optimizing solvent choice and extraction conditions can maximize the yield of specific sulfur compounds for targeted applications. Therefore, selecting the appropriate extraction technique is essential for preserving garlic's bioactive properties and enhancing its therapeutic efficacy. The manufacturing process of dehydrated garlic involves multiple stages, including peeling, slicing, drying, and grinding, to produce high-quality garlic powder, granules, or flakes (Jain et al., 2025). Various drying techniques such as hot air drying, freeze drying, and vacuum drying are explored, with a focus on preserving garlic's natural flavor, color, and nutritional value. The article highlights the importance of moisture control in preventing microbial growth and ensuring longer shelf life. Additionally, it discusses the impact of processing conditions on bioactive compounds like allicin, which contributes to garlic's health benefits (Du et al., 2025). Overall, the literature emphasizes advancements in dehydration technology to enhance efficiency, quality, and commercial viability in garlic processing. The shelf life of garlic powder is significantly affected by packaging material and storage temperature, as these factors influence moisture retention, oxidation, and microbial stability. Studies indicate that airtight and moisture-resistant packaging, such as vacuum-sealed pouches or multilayer laminates, helps preserve garlic powder's flavor, color, and bioactive compounds like allicin (Qiu et al., 2025). Higher storage temperatures accelerate moisture absorption, clumping, and loss of essential oils, leading to reduced quality and shelf stability. Research highlights that cool and dry storage conditions, ideally below 25°C, can prevent degradation and extend the product's usability. Garlic powder is commonly used as a natural preservative and flavor enhancer in food products. Product and market dynamics are best interpreted using the PLC paradigm (Sinha et al., 2024). The PLC idea serves as a planning tool that assists managers in identifying the primary marketing obstacles at every phase of a product's lifecycle and creating significant alternative marketing plans. According to Wasson , styles fade because they signify a compromise in terms of buying, and buyers begin to search for qualities that are lacking. A business can use one of four approaches when launching new products: rapid skimming, slow skimming, both sluggish and rapid penetration. There was a very sharp increase in sales during the growth period (Jamil, 2024). When early adopters find the product appealing, more customers begin purchasing it. Research in food science has explored its role in Extending shelf life .This research investigates the use of garlic powder as a natural preservative in tomato paste. The study concludes that garlic powder effectively inhibits microbial growth, thereby extending the shelf life of the product "Garlic and Other Alliums: The Lore and the Science" by Eric Block (Baiocco et al., 2025). This comprehensive book delves into the chemistry and health benefits of garlic and related alliums. It covers various aspects, including the antimicrobial properties of garlic powder and its potential applications in food preservation. This research evaluates the antimicrobial properties of garlic powder produced by different drying methods, highlighting its effectiveness against various foodborne pathogens and its potential application in food preservation (Ding et al., 2025).

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RESEARCH METHODOLOGY

To develop a comprehensive understanding of the market potential and feasibility of manufacturing garlic powder, this research adopts a quantitative research methodology. The primary focus is on collecting numerical data through structured surveys and analyzing relevant secondary sources, ensuring that the research is data-driven and objective.

The primary data collection involves conducting structured surveys targeted at restaurants, bakeries, cafes, and food processing units in Bengaluru. We have collected data from 41 businesses, including 15 restaurants, 16 bakeries, and 9 cafes, to gain a comprehensive understanding of the market. The survey is designed to gather insights into procurement patterns, usage preferences, substitute products, and purchasing behavior related to garlic powder. These surveys will be distributed through Google Forms to ensure wide reach and efficient data collection. The questionnaire comprises Likert-scale questions, multiple-choice questions, and open-ended responses to quantify market trends and identify key demand drivers.
Additionally, secondary research is conducted using existing market reports, government publications, and academic research papers on garlic powder manufacturing, demand trends, and competitive landscape. By reviewing previous studies and market analyses, this research aims to validate the growth potential of garlic powder in the Indian market and identify key factors influencing its adoption in various industries.

The data analysis will involve statistical tools to interpret the survey responses, allowing for identification of market trends, demand forecasts, and potential business opportunities. This quantitative approach ensures accuracy, reliability, and replicability, providing a strong foundation for decision-making in the business plan. By integrating primary market research with secondary data analysis, this research will offer valuable insights into the demand-supply dynamics, industry preferences, and competitive landscape, aiding in the formulation of a strategic roadmap for launching the garlic powder manufacturing business under the brand Ajo.

2.1 Sampling: Population and Method

For this research on the manufacturing of garlic powder, the target sample population consists of restaurant owners, bakery operators, and food processing units in Bengaluru. These businesses represent key consumers of garlic powder, given its widespread use in commercial food production for enhancing flavor, shelf life, and consistency in recipes. Additionally, pharmaceutical and nutraceutical companies are considered as potential secondary respondents due to garlic powder's medicinal properties and applications in health supplements.

To ensure efficient data collection, convenience sampling has been chosen as the most suitable approach. This method enables direct engagement with readily accessible respondents willing to participate in the survey, facilitating timely and practical data acquisition. Given the constraints of time and resources, this non-probability sampling technique ensures a cost-effective and efficient means of gathering industry-specific insights. However, to mitigate the potential limitations of representativeness, efforts have been made to distribute the survey through industry-relevant channels, including professional networks, trade associations, and direct outreach to commercial establishments.
The survey is structured to capture key data points, including procurement practices, frequency of usage, preferred sources of supply, purchasing behavior, and considerations regarding substitute products. By leveraging quantitative data collection via structured questionnaires, the research aims to generate statistically relevant findings that accurately reflect market demand and potential adoption rates.

Through this methodology, the research seeks to provide a data-driven evaluation of the garlic powder market in Bengaluru, offering valuable insights into consumption patterns, market trends, and business opportunities for launching Ajo as a competitive and sustainable garlic powder manufacturing venture.

3. DATA ANALYSIS AND INTERPRETATION

3.1 Type of Business

Category	Respondents	Percentage
Restaurant	15	36.6%
Bakery	16	39%

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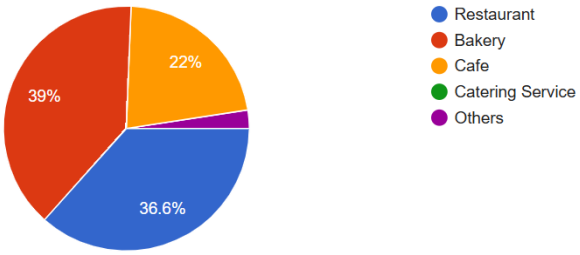
Cafe	9	22%
Catering Services	0	0%
Others	1	2.4%

Table 3.1.1



Graph 3.1.2 - B2B Customer Share for Ajo's Garlic Powder

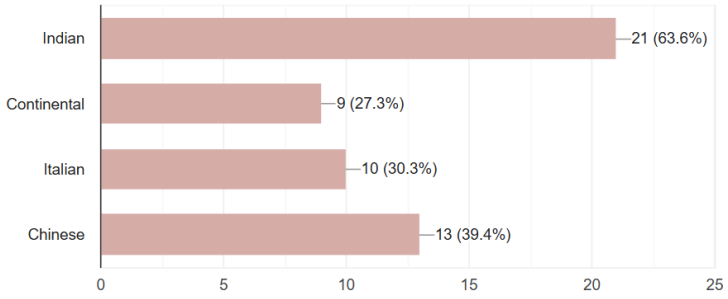
Interpretation

The data shows that bakeries (39%) and restaurants (36.6%) are the primary users of garlic powder, indicating strong demand in these sectors. Cafés (22%) also utilize it, though to a lesser extent, likely for select menu items. Catering services (0%) show no usage, suggesting a preference for fresh garlic. The findings highlight bakeries and restaurants as key target markets for garlic powder manufacturers.

3.2 Cuisine Type (For Restaurants)

Category	Respondents	Percentage
Indian	21	63.6%
Continental	9	27.3%
Italian	10	30.3%
Chinese	13	39.4%

Table 3.2.1



Graph 3.2.2 - Cuisine Preferences for Ajo's Restaurant Clients

Interpretation

The survey results reveal that Indian cuisine (63.6%) is the leading user of garlic powder among restaurants, reinforcing its importance in traditional cooking. Additionally, Chinese (39.4%) and Italian (30.3%) cuisines show notable reliance on garlic powder, given its role in enhancing flavors. Continental cuisine (27.3%) exhibits moderate demand, likely due

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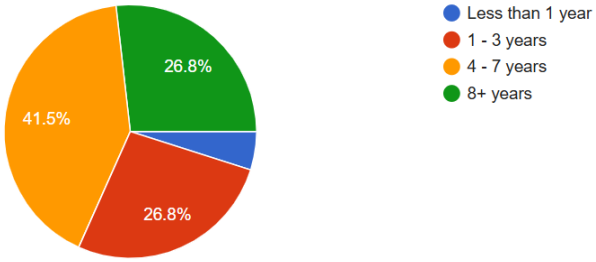
to specific dishes requiring its use. These findings highlight the extensive application of garlic powder across diverse culinary preferences, with Indian and Chinese cuisines emerging as key markets.

3.3 How many years have you been in the industry?

Category	Respondents	Percentage
Less than 1 year	2	4.9%
1 - 3 years	11	26.8%
4 - 7 years	17	41.5%
8+ years	11	26.8%

Table 3.3.1



Graph 3.3.2 - Industry Experience of B2B Respondents

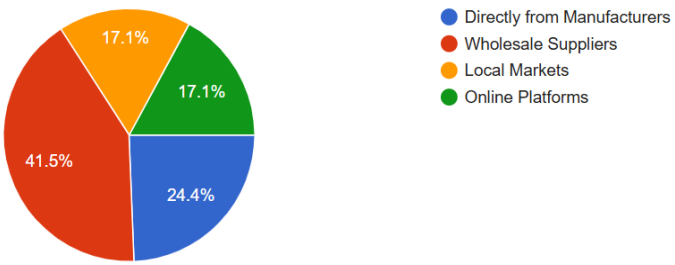
Interpretation

The data indicates that 41.5% of respondents have been in the industry for 4–7 years, suggesting a strong presence of experienced businesses that have established their operations. Additionally, 26.8% of respondents have 1–3 years of experience, reflecting a mix of relatively newer businesses. Another 26.8% have been in the industry for 8+ years, showcasing long-term market stability. Only 4.9% of businesses are less than a year old, indicating that new entrants are limited in this sector.

3.4 How do you procure Garlic Powder

Category	Respondents	Percentage
Directly from Manufacturers	10	24.4%
Wholesale Suppliers	17	41.5%
Local Markets	7	17.1%
Online Platforms	7	17.1%

Table 3.4.1



Graph 3.4.2 - Sourcing Preferences for Ajo's B2B Clients

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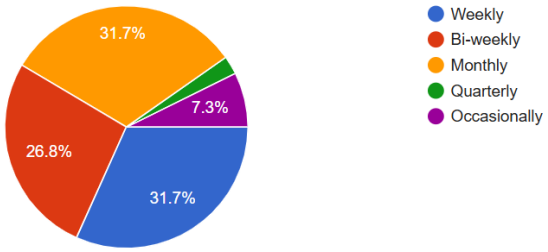
Interpretation

The data indicates that the majority of businesses (41.5%) procure garlic powder from wholesale suppliers, highlighting a preference for bulk purchasing and cost efficiency. Additionally, 24.4% source it directly from manufacturers, ensuring better quality control and direct supplier relationships. Meanwhile, 17.1% rely on local markets, possibly for convenience and immediate availability, while another 17.1% use online platforms, reflecting a growing trend in digital procurement.

3.5 How frequent do you purchase garlic powder

Category	Respondents	Percentage
Weekly	13	31.7%
Bi-weekly	11	26.8%
Monthly	13	31.7%
Quarterly	1	2.4%
Occasionally	3	7.3%

Table 3.5.1



Graph 3.5.2 - Frequency of Garlic Powder Procurement by B2B Customers

Interpretation

The data reveals that garlic powder procurement follows a consistent pattern, with 31.7% of businesses purchasing it on a weekly basis and an equal percentage opting for monthly purchases. Additionally, 26.8% prefer bi-weekly procurement, ensuring a steady supply for their operations. However, only 2.4% purchase it quarterly, and 7.3% do so occasionally, indicating that a small fraction of businesses have less frequent demand for the product.

3.6 How much quantity of Garlic powder required per month - 459 kg

Interpretation

The data indicates that the total monthly demand for garlic powder among respondents amounts to 459 kg. This highlights a significant and consistent requirement for garlic powder in the market, primarily driven by restaurants, bakeries, and cafés. The substantial demand suggests that garlic powder is a key ingredient in various culinary preparations, reinforcing its importance in the food industry.

3.7 What is the average price per kg of Garlic Powder you currently pay (in kg)

Category	Respondents	Percentage
200 - 300	13	31.7%
301 - 400	12	29.3%
401 - 500	13	31.7%
500+	3	7.3%

Table 3.7.1

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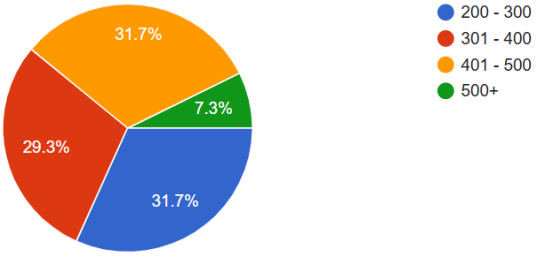


Graph 3.7.2 - Current Market Price Range of Garlic Powder Paid by B2B Customers

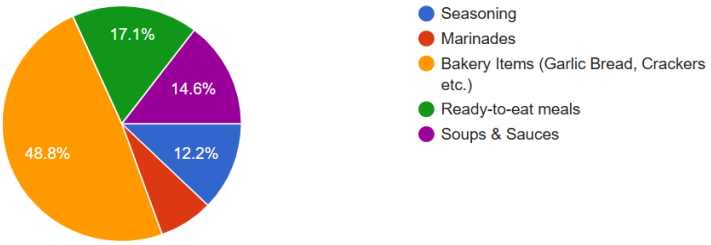
Interpretation

The data reveals that the majority of respondents purchase garlic powder within the price range of ₹200 to ₹500 per kg. Notably, 31.7% pay between ₹200-₹300, while another 31.7% fall within the ₹401-₹500 bracket. Meanwhile, 29.3% of respondents procure it at ₹301-₹400 per kg, and only 7.3% pay more than ₹500 per kg. This pricing distribution highlights a competitive market where most buyers prefer mid-range pricing, suggesting that affordability plays a crucial role in procurement decisions.

3.8 For what purposes do you use garlic powder in your products?

Category	Respondents	Percentage
Seasoning	5	12.2%
Marinades	3	7.3%
Bakery Items	20	48.8%
Ready-to-eat meals	7	17.1%
Soups & Sauces	6	14.6%

Table 3.8.1



Graph 3.8.2 - Primary Applications of Garlic Powder in B2B Customer Products

Interpretation

Out of 41 respondents, a significant 48.8% utilize garlic powder in bakery items, making it the most common application. Additionally, 17.1% incorporate it into ready-to-eat meals, while 14.6% use it for soups and sauces. Seasoning accounts for 12.2% of usage, and marinades are the least common at 7.3%. These insights indicate that garlic powder is a versatile ingredient, with a dominant role in the bakery sector while also finding applications in multiple culinary preparations.

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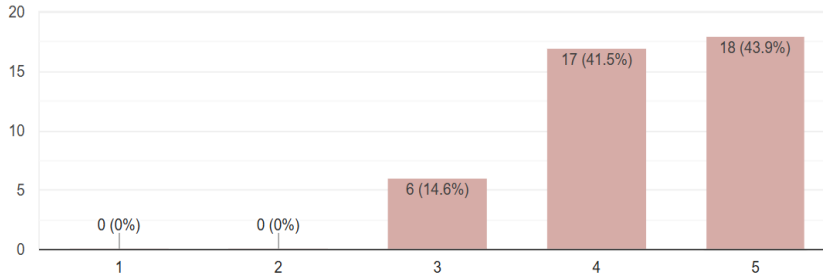
3.9 How important is garlic powder in your food preparation?

Category	Respondents	Percentage
Not Important at all (1)	0	0%
Not Important (2)	0	0%
Moderately Important (3)	6	14.6%
Important (4)	17	41.5%
Most Important (5)	18	43.9%

Table 3.9.1



Graph 3.9.2 - Significance of Garlic Powder in Food Preparation Among B2B Customers

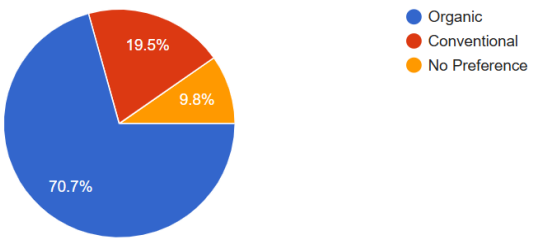
Interpretation

Among the 41 respondents, a notable 85.4% consider garlic powder to be an essential ingredient in their food preparation. Specifically, 43.9% regard it as the most important, while 41.5% find it important. Meanwhile, 14.6% perceive it as moderately important, and none rated it as unimportant. These findings highlight the strong reliance on garlic powder across various culinary applications.

3.10 What type of garlic powder do you prefer?

Category	Respondents	Percentage
Organic	29	70.7%
Conventional	8	19.5%
No preference	4	9.8%

Table 3.10.1



Graph 3.10.2 - Preference for Organic vs. Conventional Garlic Powder Among B2B Customers

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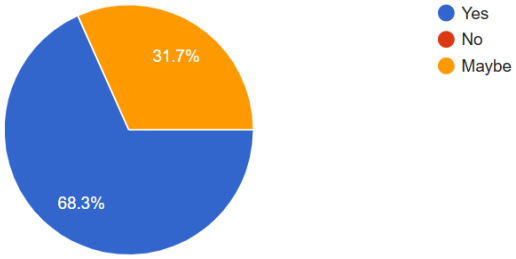
Interpretation

Out of 41 respondents, a significant 70.7% prefer organic garlic powder, indicating a strong inclination toward natural and chemical-free ingredients. Meanwhile, 19.5% opt for conventional garlic powder, and 9.8% have no specific preference. This data suggests a growing demand for organic variants in the market.

3.11 Would you consider shifting to a new supplier offering better quality and competitive pricing?

Category	Respondents	Percentage
Yes	28	68.3%
No	0	0%
Maybe	13	31.7%

Table 3.11.1



Graph 3.11.2 - Willingness to Switch Suppliers for Better Quality and Pricing

Interpretation

The data indicates that 68.3% of respondents are willing to shift to a new supplier if better quality and competitive pricing are offered, highlighting the importance of cost and quality in procurement decisions. Meanwhile, 31.7% are uncertain, suggesting that factors such as reliability, consistency, and trust in existing suppliers may influence their decision. Notably, none of the respondents outright rejected the possibility of switching suppliers.

3.12 Which factors influence your chance of garlic powder?

Category	Respondents	Percentage
Price	24	58.5%
Quality	38	92.7%
Packaging	8	19.5%
Brand Reputation	10	24.4%
Delivery Time	19	46.3%

Table 3.12.1

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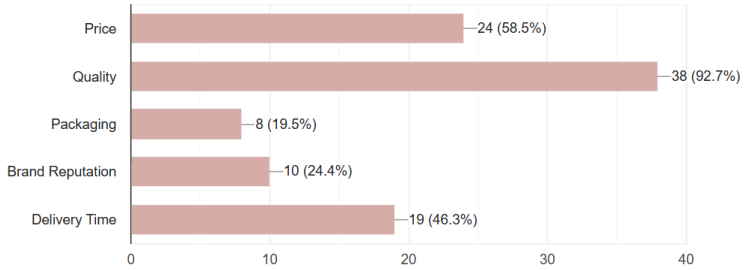


Graph 3.12.2 - Key Factors Influencing B2B Customers' Choice of Garlic Powder

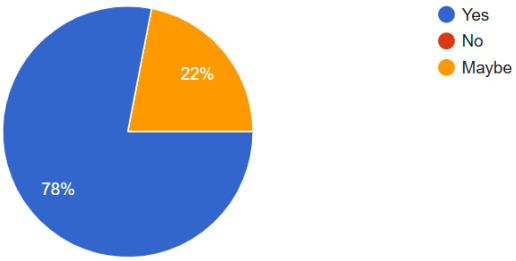
Interpretation

The responses highlight that quality is the most significant factor influencing garlic powder selection, with 92.7% of respondents considering it a key criterion. Price follows as a crucial factor for 58.5% of respondents, indicating a strong emphasis on cost-effectiveness. Delivery time also plays a considerable role, influencing 46.3% of buyers. Meanwhile, 24.4% take brand reputation into account, and 19.5% consider packaging as an important factor. These insights suggest that businesses must prioritize quality while maintaining competitive pricing and efficient delivery services to attract potential buyers.

3.13 Are you open to trying a locally manufactured garlic powder brand?

Category	Respondents	Percentage
Yes	32	78%
No	0	0%
Maybe	9	22%

Table 3.13.1



Graph 3.13.2 - Openness to Trying a Locally Manufactured Garlic Powder Brand

Interpretation

The survey findings indicate a strong willingness among respondents to try a locally manufactured garlic powder brand, with 78% expressing openness to the idea. Additionally, 22% remain uncertain and may consider it based on factors such as quality and pricing. Notably, none of the respondents outright rejected the idea, suggesting a promising market opportunity for a locally produced garlic powder brand like Ajo.

3.14 Would you be willing to participate in a product sampling test for a new garlic powder brand?

Category	Respondents	Percentage
Yes	40	97.6%
No	1	2.4%

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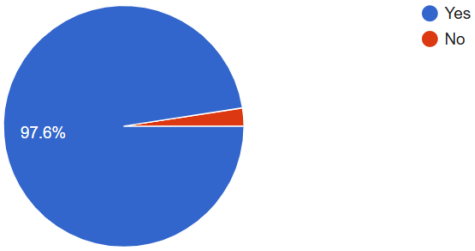
Table 3.14.1



Graph 3.14.2 - Willingness to Participate in a Product Sampling Test for a New Garlic Powder Brand

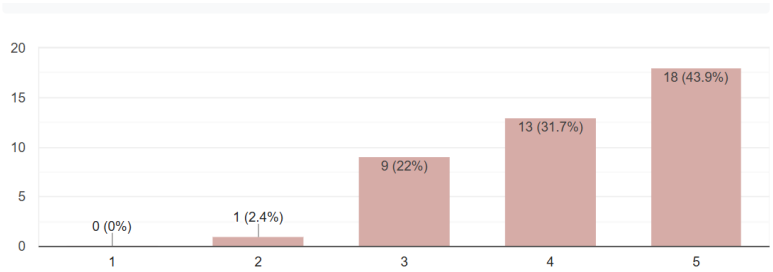
Interpretation

The survey results highlight a strong interest in product sampling, with 97.6% of respondents willing to participate in a test for a new garlic powder brand. Only 2.4% declined, indicating that most businesses are open to exploring new options if the product meets their quality and pricing expectations. This presents an excellent opportunity for Ajo to introduce its garlic powder through sampling initiatives.

3.15 Garlic powder is an essential ingredient in my food preparation?

Category	Respondents	Percentage
Not Important at all (1)	0	0%
Not Important (2)	1	2.4%
Moderately Important (3)	9	22%
Important (4)	13	31.7%
Most Important (5)	18	43.9%

Table 3.15.1



Graph 3.15.2 - Perceived Importance of Garlic Powder in Food Preparation

Interpretation

The findings indicate that garlic powder is a crucial ingredient for most respondents, with 75.6% rating it as either 'Important' or 'Most Important' in their food preparation. A smaller portion, 22%, considers it 'Moderately Important,' while only 2.4% finds it 'Not Important.' This reinforces the demand for high-quality garlic powder in the industry, emphasizing its role in various culinary applications.

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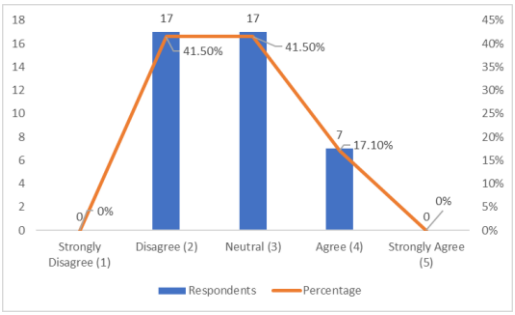
3.16 The current market price of garlic powder is reasonable

Category	Respondents	Percentage
Strongly Disagree (1)	0	0%
Disagree (2)	17	41.5%
Neutral (3)	17	41.5%
Agree (4)	7	17.1%
Strongly Agree (5)	0	0%

Table 3.16.1



Graph 3.16.2 - Perception of Reasonability of Current Market Price of Garlic Powder

Interpretation

The responses suggest that there is significant dissatisfaction with the current market price of garlic powder, as 41.5% of respondents disagree that it is reasonable, while an equal percentage remains neutral. Only 17.1% agree with the pricing, and none strongly agree, indicating potential concerns regarding cost-effectiveness. This highlights an opportunity for suppliers to offer competitive pricing to attract more buyers.

3.17 I am interested in garlic powder that offers better packaging and shell life

Category	Respondents	Percentage
Not Interested at all (1)	0	0%
Not Interested (2)	2	4.9%
Neutral (3)	5	12.2%
Interested (4)	16	39%
Most Interested (5)	18	43.9%

Table 3.17.1

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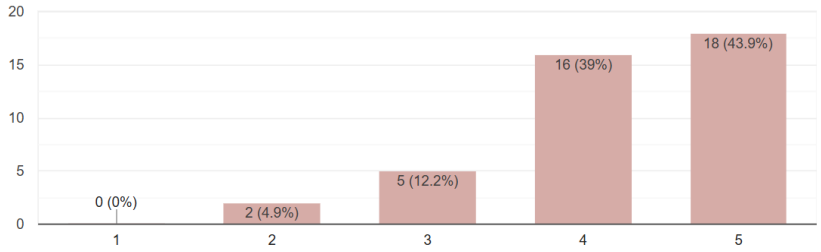


Graph 3.17.2 - Interest in Garlic Powder with Improved Packaging and Shelf Life

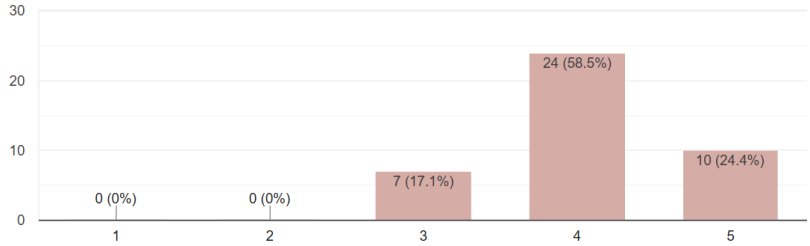
Interpretation

The data indicates a strong preference for garlic powder with better packaging and shelf life, as 82.9% of respondents express interest, with 43.9% being highly interested. Only a small fraction (4.9%) show disinterest, while 12.2% remain neutral. This suggests that improved packaging and extended shelf life could be key factors influencing purchasing decisions.

3.18 I would prefer locally sourced garlic powder over imported ones if the quality is maintained

Category	Respondents	Percentage
Not preferable at all (1)	0	0%
Not preferable (2)	0	0%
Neutral (3)	7	17.1%
Preferable (4)	24	58.5%
Most Preferable (5)	10	24.4%

Table 3.18.1



Graph 3.18.2 - Preference for Locally Sourced Garlic Powder Over Imported Options

Interpretation

The findings highlight a strong inclination toward locally sourced garlic powder, provided the quality remains consistent. A significant 82.9% of respondents consider it preferable, with 24.4% marking it as highly preferable. Meanwhile, 17.1% remain neutral, and no respondents expressed a negative preference. This indicates a promising market for high-quality, locally manufactured garlic powder.

3.19 There is a growing demand for high-quality, organic garlic powder in the food industry

Category	Respondents	Percentage
Strongly Disagree (1)	0	0%
Disagree (2)	1	2.4%

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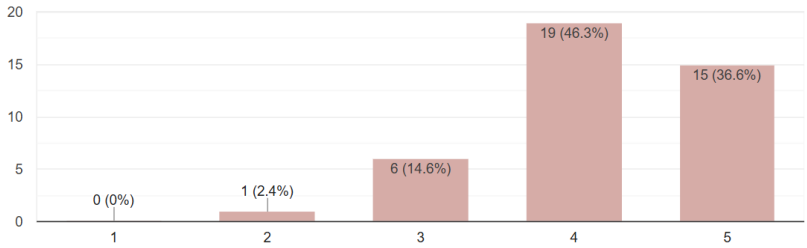
Neutral (3)	6	14.6%
Agree (4)	19	46.3%
Strongly Agree (5)	15	36.6%

Table 3.19.1



Graph 3.19.2 - Perceived Growing Demand for High-Quality Organic Garlic Powder in the Food Industry

Interpretation

The responses indicate a strong market demand for high-quality, organic garlic powder in the food industry. A majority of 82.9% of respondents agree or strongly agree with this statement, signifying a clear preference for superior organic products. While 14.6% remain neutral, only 2.4% disagree, suggesting minimal resistance to the growing trend of organic garlic powder adoption.

3.20 Do you use any substitute product for the garlic powder - Fresh Garlic

33 Respondents have chosen fresh garlic, 8 respondents chosen garlic granules

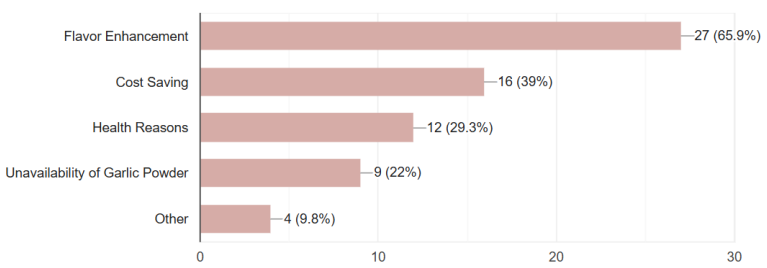
Interpretation

The data highlights that fresh garlic is the most preferred substitute for garlic powder, with 33 respondents opting for it. Additionally, 8 respondents indicated using garlic granules as an alternative. This suggests that while garlic powder is widely used, there is still a significant reliance on fresh garlic in food preparation.

3.21 For what purpose do you use this substitute instead of garlic powder

Category	Respondents	Percentage
Flavor Enhancement	27	65.9%
Cost Saving	16	39%
Health Reasons	12	29.3%
Unavailability of Garlic Powder	9	22%
Other	4	9.8%

Table 3.21.1



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Graph 3.21.2 - Reasons for Using Substitutes Instead of Garlic Powder

Interpretation

The findings indicate that the primary reason for using a substitute instead of garlic powder is flavor enhancement, as reported by 65.9% of respondents. Cost savings (39%) and health reasons (29.3%) also play significant roles in this preference. Additionally, 22% of respondents resort to substitutes due to the unavailability of garlic powder, while 9.8% cited other reasons.

3.22 How much of the substitute do you use per month?

74 kg from 41 respondents

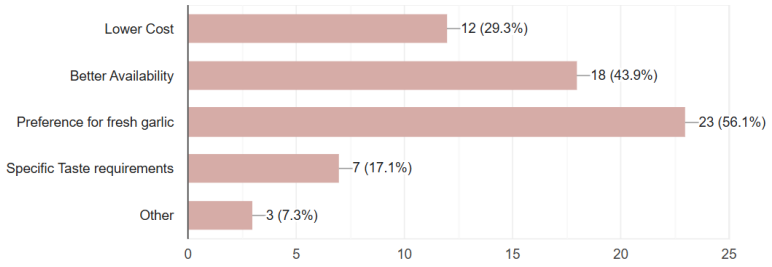
Interpretation

The data highlights that the total monthly usage of garlic powder substitutes among the 41 respondents amounts to 74 kg. This indicates a considerable reliance on alternatives, suggesting that factors such as availability, cost, or preference influence procurement decisions.

3.23 What is the main reason for choosing the substitute over the garlic powder?

Category	Respondents	Percentage
Lower Cost	12	29.3%
Better Availability	18	43.9%
Preference for Fresh Garlic	23	56.1%
Specific Taste Requirements	7	17.1%
Other	3	7.3%

Table 3.23.1



Graph 3.23.2 - Primary Reasons for Choosing Substitutes Over Garlic Powder

Interpretation

The findings indicate that the primary reason for choosing a substitute over garlic powder is a preference for fresh garlic, cited by 56.1% of respondents. Additionally, 43.9% opt for substitutes due to better availability, while 29.3% consider cost savings. Specific taste requirements and other minor factors also play a role in this decision-making process.

4. FINDINGS AND RECOMMENDATIONS

The research on Manufacturing of Garlic Powder has yielded significant insights based on the quantitative data gathered from restaurant and bakery owners in Bengaluru. Additionally, secondary data from official sources and industry reports has been used to enhance the understanding of garlic powder consumption patterns, procurement preferences, and market trends. The following section presents the key findings and their interpretations, highlighting the opportunities and challenges in the garlic powder industry (Rabee et al., 2025).

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4.1 Primary Data Insights

Our survey among Bengaluru's culinary establishments indicates a consistent demand for garlic powder, with many businesses procuring it on a weekly or monthly basis. A notable preference for organic garlic powder emerged, highlighting a trend toward healthier and more natural ingredients. Pricing remains a critical consideration, as a significant portion of respondents expressed concerns about current market rates. Furthermore, a majority showed openness to transitioning to suppliers offering superior quality at competitive prices. The inclination toward locally manufactured garlic powder is strong, provided that quality standards are upheld. Additionally, there is a pronounced interest in products featuring enhanced packaging and extended shelf life, with many establishments willing to participate in product sampling for new brands. While fresh garlic is a common substitute, factors such as cost, availability, and specific taste requirements influence this choice.

4.2 Secondary Data Insights

India stands as the world's second-largest garlic producer, with an estimated production volume of approximately 3.5 million metric tons in the fiscal year 2022. The area dedicated to garlic cultivation has been on the rise, reaching about 431,000 hectares in 2023. This expansion reflects the growing importance of garlic in India's agricultural landscape.

The global dehydrated garlic market, which includes garlic powder, was valued at USD 2.75 billion in 2023 and is projected to grow at a compound annual growth rate (CAGR) of 2.6% from 2024 to 2030. This growth is driven by the increasing demand for convenience foods and the rising popularity of plant-based diets, where garlic powder serves as a versatile seasoning.

India's garlic export sector has witnessed remarkable growth. In the fiscal year 2022-23, garlic exports surged by 159% year-on-year to 57,346 tons. This upward trend continued into FY24, with exports reaching 56,823 tons valued at Rs 277 crore during April–September 2023–24, marking a 110% increase in quantity and a 129% rise in value compared to the same period in the previous year. This export momentum is largely attributed to a global shortage and reduced supply from China, the world's leading garlic producer, prompting countries to seek alternatives from India.

4.3 Market Implications

The convergence of these insights suggests a robust and expanding market for garlic powder, both domestically and internationally. For manufacturers like "Ajo," this presents a strategic opportunity to cater to the increasing demand by focusing on quality, competitive pricing, and innovative packaging solutions. Emphasizing organic production methods and ensuring consistent supply can further enhance market positioning. Additionally, tapping into the export market can be lucrative, given the current global dynamics favoring Indian garlic products.

Based on the findings from both primary and secondary research, the following key recommendations are suggested to enhance the Manufacturing of Garlic Powder and strengthen its market position:

4.3.1 Enhance Product Quality and Organic Certification

- Focus on sourcing high-quality, pesticide-free garlic and obtain organic certifications to attract health-conscious consumers.
- Improve processing techniques to retain flavor, aroma, and nutritional value.

4.3.2 Optimize Pricing and Supply Chain Efficiency

- Address pricing concerns by streamlining production costs, negotiating better raw material deals, and improving supply chain logistics.
- Offer bulk purchase discounts and competitive pricing to wholesalers and businesses.

4.3.3 Improve Packaging and Shelf Life

- Develop moisture-resistant, airtight, and eco-friendly packaging to extend shelf life and maintain product quality.
- Introduce resealable packaging options for better storage convenience.

4.3.4 Strengthen Market Penetration and Consumer Awareness

- Promote the benefits of locally manufactured garlic powder over imported substitutes.
- Use product sampling, online promotions, and business partnerships to boost awareness and sales.

4.3.5 Expand Product Offerings and Customization

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- Introduce variants such as roasted garlic powder, blended seasoning mixes, or low-sodium options to cater to diverse consumer preferences.
- Provide customized bulk orders for restaurants, bakeries, and food manufacturers to build long-term relationships.

5. CONCLUSION

The research on garlic powder manufacturing highlights the growing significance of this ingredient in the food industry, driven by its convenience, longer shelf life, and versatility in culinary applications. Primary data collected from industry respondents reveals a strong preference for high-quality garlic powder, with factors such as price, quality, and availability playing a crucial role in purchasing decisions. A majority of businesses are open to shifting suppliers if offered better pricing and quality, indicating a competitive market with opportunities for new entrants.

Secondary data supports this trend, showing that the global garlic powder market is expanding due to increasing demand from food processing industries, restaurants, and health-conscious consumers. With India being a major garlic producer, there is potential for locally manufactured garlic powder to compete with imported varieties, provided quality standards are met. Additionally, sustainability and packaging improvements could enhance market acceptance.

Overall, the research emphasizes the need for garlic powder manufacturers to focus on consistent quality, competitive pricing, and efficient distribution channels. By addressing these key areas, businesses can cater to the evolving needs of the food industry while leveraging India's strong garlic production capabilities to establish a robust market presence.

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