

Analysis of Customer Reviews for Angel Hair Pasta and Request for Production Data

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Date: February 27, 2025

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Executive Summary

This report presents the findings of an in-depth analysis of customer reviews for My Noodle Inc.'s Angel Hair Pasta product. The analysis was conducted to identify key areas of customer dissatisfaction and guide further investigation into the production process. Using sentiment analysis and Pareto principles, we pinpointed three critical product characteristics – smell, texture, and taste – that have been consistently highlighted as problematic by customers. We believe that addressing these issues is crucial to improving customer satisfaction and maintaining the reputation of our brand. Based on these findings, we request detailed production data related to these characteristics to facilitate further analysis and process improvement efforts.

1. Introduction

My Noodle Inc. has a long-standing tradition of providing high-quality and innovative noodle products to consumers worldwide. Our Angel Hair Pasta, a konjac-based, vegan, gluten-free, and keto-friendly option, has been positioned as a healthy and delicious alternative to traditional pasta. However, recent trends indicate a rise in customer dissatisfaction with this product. To address this concern, we undertook a comprehensive analysis of customer reviews to identify the root causes of these negative sentiments.

2. Methodology

Our analysis was conducted using a combination of sentiment analysis and Pareto principles. The following steps were involved:

- **Data Collection:** We gathered a dataset of customer reviews for Angel Hair Pasta from various sources, including e-commerce platforms and social media.
- **Sentiment Analysis:** We employed natural language processing (NLP) techniques to analyze the sentiment expressed in each review. This involved using a pre-trained sentiment analysis model to classify reviews as positive, negative, or neutral based on the language used.
- **Filtering:** To focus on areas of improvement, we filtered the dataset to include only reviews expressing negative sentiment. This allowed us to concentrate on identifying specific product characteristics that were causing customer dissatisfaction.

- **Pareto Analysis:** We applied the Pareto principle, also known as the 80/20 rule, to identify the most significant factors contributing to negative customer feedback. This involved counting the frequency of mentions of various product characteristics in the negative reviews and ranking them in descending order of occurrence.

3. Results

The sentiment analysis revealed a significant proportion of negative reviews, indicating a need for further investigation into the product and production process. The Pareto analysis of these negative reviews highlighted three key product characteristics as the primary drivers of customer dissatisfaction:

3.1 Smell

A considerable number of customers reported an unpleasant smell associated with the Angel Hair Pasta. The descriptions of the smell varied, with some customers likening it to a "fishy" or "chemical" odor. This issue could be attributed to several factors, including:

- **Raw Material Quality:** The quality of the konjac flour used in the production process could be a contributing factor. Variations in the sourcing or processing of the raw material might lead to inconsistencies in the final product's smell.
- **Production Process:** Certain stages in the production process, such as the heating or drying of the noodles, might generate volatile compounds that contribute to the undesirable smell.
- **Packaging:** The packaging material itself might absorb or react with the noodles, leading to the development of off-odors.

3.2 Texture

Several customers expressed dissatisfaction with the texture of the Angel Hair Pasta, with many describing it as "mushy," "slimy," or "rubbery." This inconsistency in texture could be due to:

- **Production Process:** Variations in cooking time, temperature, or water content during the production process could significantly impact the final texture of the noodles.
- **Storage and Handling:** Improper storage or handling practices could lead to changes in the noodles' texture over time. Exposure to temperature fluctuations or excessive moisture could contribute to the reported issues.

3.3 Taste

While taste preferences are subjective, a noticeable number of customers found the Angel Hair Pasta to be bland or lacking in flavor. This could be attributed to:

- **Ingredient Composition:** The ratio of konjac flour to other ingredients, such as the calcium additive, might affect the overall taste of the noodles.

- **Production Process:** Certain steps in the production process, such as rinsing or drying, could inadvertently remove or alter the flavor compounds in the noodles.

4. Recommendations and Request for Production Data

Based on these findings, we recommend a thorough review of the production process for Angel Hair Pasta, focusing on the three identified characteristics: smell, texture, and taste. To facilitate this investigation, we request the following data from the production lab:

4.1 Smell

- Quantitative measurements of odor compounds produced at different stages of the production process using techniques such as gas chromatography-mass spectrometry (GC-MS). This will help identify specific volatile compounds contributing to the undesirable smell.
- Analysis of packaging materials to assess their potential for off-gassing or absorption of odors. This could involve testing different packaging materials and evaluating their impact on the product's smell over time.

4.2 Texture

- Measurements of noodle firmness and elasticity at various stages of the production process using texture analyzers. This will help monitor the consistency of the noodles' texture and identify potential deviations.
- Data on storage and shipping conditions, including temperature and humidity, to evaluate their potential impact on noodle texture. This information can be used to optimize storage and transportation practices to preserve product quality.

4.3 Taste

- Detailed analysis of ingredient composition and consistency to ensure that the ratio of konjac flour to other ingredients is within the desired range. This could involve regular testing of raw materials and finished products to monitor for any variations.
- Sensory panel evaluations of noodle taste at different stages of the production process to assess flavor profiles and identify potential areas for improvement. This will provide valuable subjective feedback on the product's taste.

5. Conclusion

The analysis of customer reviews has provided valuable insights into the key areas of concern regarding our Angel Hair Pasta product. By focusing on the identified characteristics – smell, texture, and taste – and collecting relevant production data, we can initiate a comprehensive investigation into the production process. This will enable us to identify potential sources of variation and implement appropriate controls to ensure product consistency and customer satisfaction. We believe that addressing these issues will not only improve the quality of our

Angel Hair Pasta but also strengthen the reputation of My Noodle Inc. as a provider of high-quality and innovative noodle products.

We look forward to your cooperation in providing the requested production data and collaborating further on this project to achieve our shared goal of delivering exceptional products to our valued customers.

Thank you for your time and consideration.