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From Traditional Medicine to Modern Markets: The Economic Development of the Xinhui Chenpi Industry

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ABSTRACT

Xinhui Chenpi is a highly sought after agricultural product with its medicinal properties and economic value, therefore there is an immediate need for more research into its pricing and pricing volatility. Existing agricultural economic research mainly concentrates on commonly fresh agricultural products and commodity staples, placing particular emphasis only on basic supply and demand relationships. However, little research has been conducted regarding price volatility differentials for storable products that gain value with age such as Xinhui Chenpi, and the internal indicators of quality that contribute to a product's overall market performance. This research study attempts to address this gap in the research by systematically evaluating the expansion pattern, tiered pricing structure, and volatility of Xinhui Chenpi and developing a financial decision matrix for industrial pricing and production based on the determination of product's quality. The quantitative results show that ultra-aged and branded versions of this product have a higher rate of market volatility as compared to medium aged products and the aggregate quality of the product is determined primarily based upon the storage conditions, aroma profile, and changes in active ingredients. By contributing to the agricultural economics literature, this research provides additional clarification to the empirical evidence on these products. From a practical standpoint, the existing quality decision matrix offers practical operational guidelines and predictability in regards to market speculation risks, helping to create uniformity for the entire length of the industry value chain, and supports the sustainable and high-quality growth of the Xinhui Chenpi industry.

Keywords: Xinhui Chenpi, Price volatility, Commercial viability, Industry development, Market expansion

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1. Introduction

Chenpi, a product of the sun dried peel of Mandarin orange, is highly important both for Traditional Chinese Medicine (TCM) and for the greater culinary world throughout China. With roots extending back over 700 years to the Song Dynasty, Chenpi has been utilized for medicinal purposes since at least 200 AD during the Eastern Han Dynasty (Li et al. 2025). The long standing history of Chenpi reflects the relevance and importance of this Chinese medicinal herb, and demonstrates the extensive traditional practices utilized in China to promote good health by the use of naturally occurring substances. The cultural significance of Chenpi is seen strongly in Xinhui, Guangdong Province, China, where the unique process of aging Chenpi is not only recognized by TCM practitioners, but also legally patented for its medicinal properties as of 2020. Economically, the market value of Chenpi is projected to be approximately 23 billion Chinese yuan (USD 3.2 billion) as of 2023 (Wong, 2025). In addition to the estimated market value, Chenpi producers have diversified the product line into more than one hundred varieties that span six major categories including medicine, food and tea. This dynamic marketplace not only supports local economic growth, but additionally serves as an increasing example of the global interest in traditional Chinese Herbal products with the introduction of Chenpi products to the European Pharmacopoeia in 2016 and obtaining United States FDA Certification in 2022 for expanded distribution into the United States market (Fu et al. 2025).

Though it has been admitted that Chenpi has both cultural and economic importance, the ramifications on health, as well as its correlation with dietary disease, are not well understood. Although considerable research shows that Chenpi has an anti-inflammatory effect, protects the liver and has anti-aging properties, there is also research emerging stating that certain components of Chenpi may help to prevent cancer (Wang et al. 2022, Qian et al. 2021). However, it should be noted that there is an absence of information regarding the health benefits of Chenpi among populations who have limited access to it. Without adequate access to Chenpi products, communities tend to have a greater prevalence of diet-related diseases, according to The Food Trust. Therefore, the question arises as to how effective Chenpi is at addressing the nutritional disparity in food deficit areas. The majority of published studies treat Chenpi as a food with potential health advantages and fail to address how consuming Chenpi would affect community health in food deficit areas. There is therefore a need for additional research into the health benefits of a traditional medicinal-derived food in populations that have poor dietary quality. The current study will utilize factory data to examine market trends, quantify the economic value of the Chenpi industry, and specifically focus on the Xinhui Industry. The result of this work will introduce an empirical analysis of the economic impact of the Xinhui Industry, rather than relying upon the previous literature reviews conducted on Chenpi. This research aims

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to gain insights into how economically viable the Chenpi industry is today as well as how the market for Chenpi products is developing and changing.

Findings from this research will also serve as a reference for policy-makers, investors and agricultural stakeholders in order to demonstrate the potential that Chenpi products can provide as an agricultural commodity to support both local and regional economic development. The methodological design of this research will consist of using both quantitative methodology to collect and analyse data on the sales and production from the manufacturers of Chenpi products combined with qualitative methodology based on descriptive information from factory visits. This combination of methodologies will allow for comprehensive descriptions of the activities and dynamic interaction of the Chenpi market. Ultimately, the aim of the research is to elucidate the relationships between traditional dietary practices and the modern economic realities of food production and consumption.

2. Research Design

The present study utilized a mixed-methods approach consisting of interviews, follow-up communications, and secondary data to develop a thorough understanding of the topic of this research. The approach was designed to collect both qualitative and quantitative data so that the questions being researched could be addressed in detail.

Data collection began with interviews with key stakeholders at a well-established Chenpi factory in Xinhui named Hongdatang Chenpi Tea Industry Co., Ltd. Hongdatang has had over 20 years of operational experience in producing Chenpi and has received multiple awards and recognition in its industry such as Xinhui Aged Tangerine Peel Dual GI Certification and National Organic Product Certification. The participants in the interview process included individuals from both the management levels of the organization, as well as operational staff. The major participants were: Chief Operations Officer; the Team Leads from all production departments and the Team Leads from different production departments. Interviews were conducted in person at the company's main office and by way of video conferencing with those who were remote. After the interviews, the follow-up communications were conducted through emails to clarify any questions and request additional insight.

A semi-structured format was adopted for open-ended discussions while still ensuring that the necessary topics were covered in a systematic fashion. The first phase involved developing a list of interview questions that were directly related to the goals of the research. This included conducting a pilot test of the questions to finalize them based on feedback received from participants in the pilot test. The second phase involved conducting and recording interviews with the consent of the participants to ensure the results were accurate. The third phase involved

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sending follow-up correspondence to the participants to collect any additional information as well as verifying the interpretation of the original discussion. The next phase involved transcribing the interviews and grouping them according to similarities to produce a more structured approach to analysis. The fourth phase included applying qualitative research methodology to analyse the interviews to develop the prominent themes and trends as well as using quantitative research to analyse the secondary data in order to generate relevant metrics that would assist in supporting the broader narrative.

In addition to the data collected from the interviews and subsequent follow-up, additional historical and contextual data were sourced from industry reports, company documents and academic journals. This secondary data provided critical background information for the qualitative findings and offered empirical evidence to support the qualitative findings. The methodology was appropriate as the interviews allowed for an in-depth examination of each participant's viewpoint and were therefore an essential tool for understanding the complexity of organisational dynamics. The follow-up emails added to the reliability of the data as they provided opportunities to clarify any misunderstandings. Finally, the use of secondary data also provided a comprehensive analysis of the data and therefore provided a more robust interpretation of the findings.

As with any research methodology, there were limitations to this methodology identified by the researchers throughout the course of the research. First, the sample size is limited to data collected solely with one Chenpi factory, leading to a lack of generalization across the Chenpi industry. Second, the limited number of two visits to the site also restricted the amount of insight that could be obtained into the operational environment. The findings should be interpreted with caution due to these limitations and the need for additional research to support and expand on the findings discovered in this study.

3. Results

3.1 The Xinhui Chenpi Market

The value created through the production of Chenpi has continued to grow over the past decade from 2010 to 2023 leading to economic expansion. In particular, Figure 1 shows that the overall market value of Chenpi from Xinhui has risen steadily from being less than 1 billion Chinese yuan (approximately US $150 million) in 2010 to 4 billion Chinese yuan in 2015, to 15 billion Chinese yuan (approximately US $2.4 billion) in 2021, and finally reaching nearly 24 billion Chinese yuan (approximately US $3.8 billion) in 2023. This increase in market value is paralleled by a growth in the amount of land cultivated for Chenpi shown in Figure 2; starting

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with 10,000 mu (1 mu = 0.06 acres) in 2000 growing to 20,000 mu in 2010, growing to 60,000 mu in 2015, reaching over 100,000 mu by 2021, and finally reaching over 125,000 mu in 2023.

Fig. 1. Overall market value of Xinhui Chenpi from 2010 to 2023

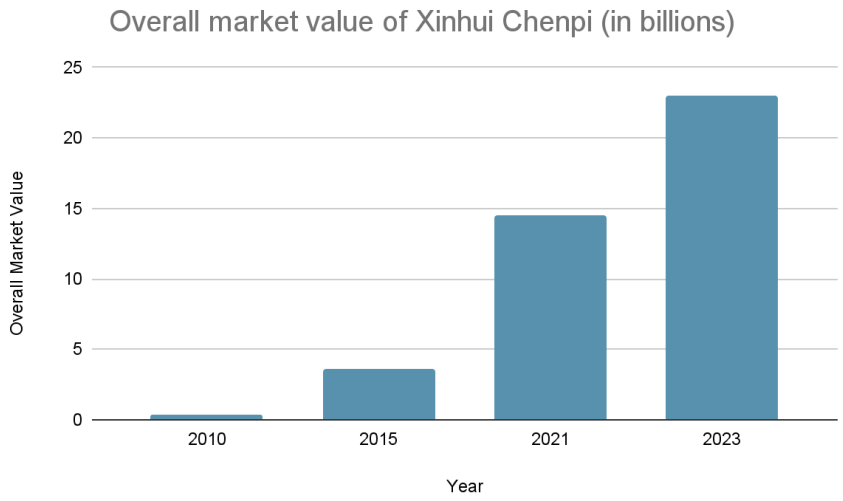
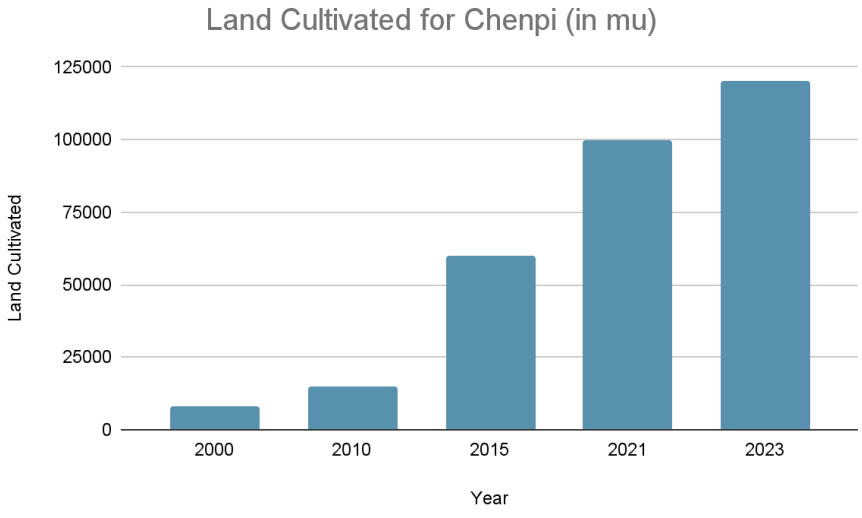


Fig. 2. Land cultivated for Chenpi from 2000 to 2023



Both datasets demonstrate a consistent pattern of acceleration over time. This concurrent expansion in both the market value and cultivation area suggests that the Xinhui Chenpi industry has greatly expanded. The continued upward trend in both market value and area cultivated indicates that there is an increasing scale of economics within the industry and that there is very

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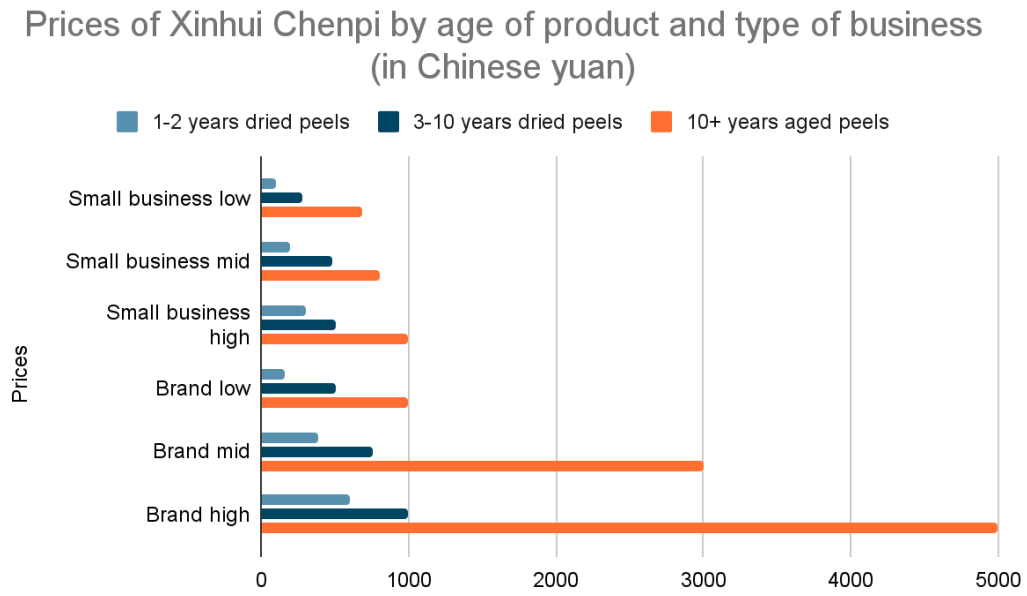
strong commercial viability, with strong growth of demand and production capacity in the past ten years.

3.2 The Xinhui Chenpi Prices

Figure 3 illustrates the price points of Xinhui Chenpi differentiated by age of product and type of business, including smaller businesses and larger brands, with low, medium, and high price levels. The data demonstrate a significant amount of variability between price points due to differences in product characteristics and the type of seller.

Fig. 3. Prices of Xinhui Chenpi by age of product and type of business



The least expensive Chenpi products are seen in the one to two-year dried peel category from small businesses at the low-end tier with prices beginning at about 100 yuan. Conversely, the highest cost Chenpi products are aged peel products (10 or more years) sold through branded businesses at the high-end tier priced at up to 5,000 yuan with a large price range (near 100 to over 5,000 yuan) representing approximately a 50+ times purchase price difference between the least expensive and the most expensive.

The Chenpi market demonstrates a tiered pricing structure, where branded manufacturers as higher-tier sellers charge premium prices than medium- and lower-tier sellers. Therefore, the prices offered by the small business sellers represent the entry-level affordable offerings of Chenpi versus premium priced offerings of established brands.

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In conclusion, the pricing of Chenpi products is very diverse from different product classifications and sellers.

3.3 Price Volatility of Xinhui Chenpi

This part of the report looks into the volatility of the prices of Xinhui Chenpi by utilizing the quantitative volatility index, expressed mathematically as follows:

$$Price\ Volatility = \frac{Highest\ Price - Lowest\ Price}{Average\ Price}$$

Volatility patterns are analyzed across different Chenpi age categories and business types using separate classification criteria, mainly focusing on 1-2 year fresh dried peels, 3-10 year medium aged peels, and 10+ year premium aged peels produced by branded and small business manufacturers.

3.1.1 Volatility by Age Classification

This section assesses the difference in price volatility across three age cohorts of Xinhui Chenpi as broken down into 1-2 year fresh dried peels, 3-10 year medium aged peels, and 10+ year premium aged peels.

It was noted that the highest degree of price volatility among the three age classifications occurs in the 10+ year aged Chenpi, as demonstrated in Table 1, which shows a price volatility value of 3. This is likely due to the low production of premium aged Chenpi resulting from its long manufacturing process. Additionally, the high value of the premium aged Chenpi allows for a wider range of price fluctuations due to differences in market locations and advertising. Finally, the specific organoleptic and biological properties can cause fluctuations in demand for premium aged Chenpi as preferences vary across buyer segments and shift with trends and expert reviews, so what is highly prized one season may be overlooked the next.

The 1-2 year fresh dried peels have the second highest degree of price volatility with a value of 2. The fluctuations in price for fresh dried Chenpi is mainly due to seasonal imbalances in supply and limited market understanding regarding immature dried peels which are not recognized as well as the aged counterparts.

The 3-10 year medium aged peels have the least degree of price volatility indicating a reasonably stable micro-market with consistent supply and demand dynamics and the establishment of a mature customer base which minimizes extreme price fluctuations.

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Table 1. Price volatility by types of Chenpi

Types of Chenpi	Price Volatility
Dried tangerine peels 1-2 years	2
Dried tangerine peels 3-10 years	1.89
Aged peels 10+ years	3

3.3.2 Volatility by Business Type

This section looks at the differences in price volatility for various business types which include tiered branded manufacturers (high, mid, low), and tiered small-business manufacturers (high, mid, low).

It was found that high tier Chenpi from branded sources shows the greatest volatility with a value of 4.4 in regard to price of all types of businesses, as indicated in Table 2. The volatility in price is attributed to premium pricing strategies, high levels of sensitivity to brand equity and consumer attitudes.

Low tier segments of the market, such as low tier small companies and low tier branded products have a lower level of price volatility (2.07 and 1.68 respectively). This is likely due to the mass-market nature of their positioning in addition to the moderate price points, both of which provide a measure of protection against significant fluctuations in price.

Mid and high tier small companies products exhibit moderately volatile prices, (1.25 and 1.4 respectively) which reflects a balance of relatively stable production, adequate supply, and predictable demand within this market segment. These small companies are typically family-owned businesses that have operated on their own land for generations, enabling them to develop established, repeatable processing and storage methods; as a result, their annual output remains relatively stable rather than fluctuating significantly. Demand is also more consistent: buyers in these segments tend to be regular customers—retailers, small-scale blenders, and consumers familiar with the brand—rather than speculative collectors, so purchase volumes change gradually rather than abruptly. Brand awareness for these companies is often functional and reputation-based: customers recognize the brand for consistent quality, typical sensory profiles, and reliable availability. That trust reduces uncertainty about what they will receive and lowers

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the incentive to bid up prices aggressively, which in turn dampens short-term price swings and yields the observed moderate volatility.

Table 2. Price volatility by types of business

Types of Business	Price Volatility
Small business low	2.07
Small business mid	1.25
Small business high	1.4
Brand low	1.68
Brand mid	3.49
Brand high	4.4

4. Financial Decision-Making Matrix

This section outlines the model used by industry players to develop production and pricing strategies based on measured quality attributes of Xinhui Chenpi.

There are three components–storage condition, fragrance, active ingredients–that contribute to the degree of quality and corresponding market value for Xinhui Chenpi as summarized in Table 3.

Table 3. Storing conditions, fragrance, and active ingredients for different types of Chenpi

	Storing Condition	Fragrance	Active Ingredients
Dried tangerine peels 1-2 years	Natural air-dry; cotton bag/breathable box; dry, ventilated, light-proof room; sun every 1–2	Strong citrus aroma; sweet; simple; no aged aroma	High volatile oil (limonene); low flavonoids (nobiletin); basic level,

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	months		untransformed
Dried tangerine peels 3-10 years	Sealed glass/ceramic; desiccant; occasional ventilation	Mellow; sweet-herbal; citrus fades; aged aroma; honey notes; rich	Volatile oil decreases; flavonoids (nobiletin, tangeretin) increase; active components rise; medicinal properties emerge
Aged peels 10+ years	Sealed; light-proof; ceramic/tin; constant temp/humidity; minimal handling	Woody-aged; citrus gone; mellow; camphor/woody notes; long-lasting; layered	Low volatile oil; highest flavonoids; new bioactive compounds; peak medicinal value

4.1 Storage Condition

Building on those market dynamics, storage conditions play a crucial role in determining Chenpi quality and therefore influence its market value. Storage conditions of Chenpi are determined by the environmental conditions of where Chenpi is to be stored; 1-2 year old peels are soft and moist. They need to be hair dried by natural air before placement into cotton bags or breathless paper boxes for exposure to sunlight and fermentation. 1-2 year old peels should also be kept stored in a dry, good-ventilated area and exposed to sunlight every other month to prevent mold growth.; 3-10 year old peels must have their relative humidity controlled through the use of sealed glass or ceramic storage containers; and peels that are over 10 years old require hermetic or temperature-controlled storage so they can maintain their physical and biological structure and still have active oil glands remaining.

4.2 Aroma Profiles

The aroma of the peel is one of the main organoleptic characteristics relating to quality gradation. Fresh peels (aged between 1 and 2 years) exhibit bright citrus aroma only, and will have a very light sweet aftertaste. There should be nothing else indicating that it was aged; therefore there is no "chenxiang". Chenpi from 3-10 years have a very mellow smell with sweet and herbal scent; the bright citrus smell will dissipate, replaced by very soft aged chenxiang along with herbal notes and light honey sweetness. The smell feels warm, gentle and rounded.

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Aged peels (10+ years) show very complex, woody aged smells, and the other fruit smell will be diminished. Therefore the fresh smell is almost entirely gone and has a rich, mellow chenxiang with herbal notes and oftentimes has a unique camphor or woody undertone. It also lasts a long time, be very restrained and be heavily layered.

4.3. Active Ingredients

The total amount of bioactive compounds and the biotransformation of these substances is what determines both the medicinal and economic value of Chenpi. New peels have a high level of volatile oils, including limonene, which gives fresh peels their pungent smell, but very little or no flavonoid compounds like nobiletin, which are found in the very early stages of aging and have experienced minimal or no change to their chemical structure. Medium-aged peels have fewer volatile oil compounds than 1-2 year old peels do, and they are less pungent than fresh peels. However, both nobiletin and tangeretin are present and increase in quantity as these peels age. Meanwhile, the number of compounds produced during the aging process (bioactive compounds) is increasing, resulting in large amounts of Chenpi pigment and hesperidin being produced as peels continue to age. In contrast, aged peels have very few to no volatile oil compounds, a high quantity of flavonoid compounds, and newly generated bioactive compounds. The concentration of volatile oil in a 10+ year old peel is much lower than that of a 1-2 year old or a 3-10 year old peel, whereas the levels of flavonoid compounds are at their highest and stable after reaching peak levels. An abundance of new chemically synthesized bioactive compounds are produced during the aging of Chenpi. After 10+ years of aging, the bioactive compounds in Chenpi give the fruit a smooth, mild, mellow character. Therefore, Chenpi older than ten years old is more potent from a medicinal and economic standpoint than 1-2 year old and 3-10 year old Chenpi.

4.4 Functional Rationale of the Decision Matrix

The decision matrix provides a qualitative correlation amongst different temperature controlled storage conditions, aroma profiles, and bioactive constituents. This information creates a relationship between the various parameters and the resulting quality stratification and market values which contributes to the formulation of outcomes. By using this functional rationale, producers can optimize how they store products to improve the aromatic qualities and preserve the bioactive compounds for improved overall product quality. In the commercial sector, the decision matrix provides producers with a basis for evidence-based pricing: the high-grade Chenpi products that were produced by using optimal storage conditions and possessing improved bioactive profiles. Therefore , the high-grade Chenpi can be priced in the premium market sector, while the standard-grade Chenpi products will be priced at mass-market levels. Finally, this decision matrix will assist in determining capital utilization decisions for investing in specific storage and aging infrastructure to maximize profit margins and achieve the best

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return on investments, especially in high-volatile and high-value market sectors such as 10+ year-aged Chenpi. The best return would be expected from products that have been produced by using optimal storage conditions since they have better and more numerous aromatic properties and have the greatest financial value.

In conclusion, this investigation regarding the price fluctuation of Xinhui Chenpi indicates a positive correlation between the level of price fluctuation and the amount of commercial potential, as well as the increased profit margin potential in the marketplace. Both ultra-aged (10+ years) Xinhui Chenpi and high-end brand Xinhui Chenpi represent the most volatile market segment, and provide the main growth opportunities for organizations seeking to differentiate their brands and achieve premium value. In order to successfully market ultra-aged Xinhui Chenpi as a premium product, it is recommended for industry participants to achieve the following 3 goals: 1) Optimal storage conditions to ensure the structural integrity and preservation of quality; 2) Refine and preserve the desired aroma profile compatible with consumer expectations for a mature woody aromatic profile; and (3) Prevention of biotransformation of bioactive compounds to enhance the medicinal and economic value of Xinhui Chenpi. When these key factors are optimized, product quality and brand equity will be enhanced and sustained, while also creating ongoing demand in highly volatile markets, thus ensuring the long-term viability of Xinhui Chenpi across a broad range of business types.

Discussion & Conclusion

This study examined the market scale, tiered pricing, price volatility, and quality-driving factors of Xinhui Chenpi from 2000 to 2023, yielding several notable results. In terms of the growth in both number of producers and amount produced, Xinhui Chenpi industry has seen a surge over the last two decades. In 2000 the Chenpi industry had approximately 10,000 mu (or 6,500 acres) of cultivable area. By 2023, that stretch has expanded to over 125,000 mu (or 82,000 acres) across the country. Likewise, the Chenpi market value has exploded from roughly 1 billion RMB in 2010 to nearly 24 billion RMB in 2023; concurrently, the amount of product available for sale has also increased massively thanks to high levels of domestic demand and the subsequent expansion of domestic businesses producing Chenpi. As for the general price for Chenpi, the market operates on a highly stratified pricing system. Some small vendors in the marketplace sell low-end, fresh Chenpi for about 100 RMB each, while premium, 10+ year aged Chenpi from well-known brands can sell up to 5,000 RMB each, representing a price differential of over 50X. Interestingly, the price volatility is higher for fresh Chenpi between 1-2 years and products from small brands, with an index of 2.00, compared with the 3-10 year Chenpi, which has a lower index of 1.89. This finding suggests that buyers of fresh Chenpi may have greater difficulty evaluating the quality and value of Chenpi. Therefore, prices for fresh Chenpi and products from small businesses tend to fluctuate more than those in the mature markets. In addition to the age

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of the Chenpi, its storage conditions, aromatic profiles, and bioactive compounds determine its quality and consequently its market value. Throughout the aging process, the quantity of volatile oil components reduces while the quantity of flavonoids that accumulate continues to increase, resulting in new bioactive materials developing. During this time, storage methods have evolved from natural air drying to sealed storage at constant temperatures and humidity to preserve the Chenpi product, which in turn, both shape aromatic characteristics of the product and medicinal efficacy, resulting in an order of quality and value hierarchy that is viewed differently depending on the aging of the product.

The recent academic and industrial research demonstrates strong alignment with prior findings about Xinhui Chenpi and offers some additional quantitative confirmation of these existing results. In alignment with the He et al. (2025) study, this paper shows that storage conditions and aging period significantly change the chemical composition of Chenpi; most importantly, volatile oils decrease, but flavonoid content increases with the passage of time, therefore leading to aged Chenpi being more valuable both medicated-wise, and lucratively, than fresh Chenpi. Similarly, the tiered pricing structure and the uneven volatility in the Chenpi marketplace that are identified in this paper closely mirror those discussed by Cunningham et al.'s(2018) analysis of the marketing of characteristic agricultural goods - which include, among others, aged total herbal products – and the authors' observation of large price gaps and differing volatilities between price-class and cost-class goods. In addition, these authors pointed out that branded goods are subject to greater price variability than generic goods, a conclusion that this paper's price variability confirms about high-quality branded Chenpi. Lastly, while the majority of prior literature has looked at chemical properties or market properties independently of one another, this paper integrates chemical properties with market price rules and quality indicators into the same analytical framework thereby uniting the evaluation of chemical quality with the evaluation of commercial market quality.

The results of this study have meaningful practical and strategic implications for Chenpi producers, brands, investors, and industry regulators. Manufacturers and vendors can use the quality decision matrix from this research to make scientific determinations on how to produce and store products in a standardized manner and to price them appropriately. By using the quality grade matrix to optimize storage conditions that will protect aroma and bioactive compounds, producers can enhance the overall quality of their product and justify a premium price point, especially for products that are aged for 10+ years. The price volatility data will give investors insight about the risks and profits associated with each specific market segment; premium segments with high volatility have greater profits, but also represent a higher operational risk than low volatility tiered segments with stable pricing, which are better suited for long-term, low-risk investment. By having an understanding of the tiered pricing structure, small-scale

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farmers and grassroots vendors will be able to improve their overall positioning in the marketplace and avoid damaging price competition in the low-end marketplace. Additionally, this research provides insight into industrial governance. The differences in price and volatility clearly demonstrate the need for an industry-wide, unified system of quality grading and aging certifications. Ensuring a transparent system of evaluation and grading will reduce the level of information asymmetry between sellers and consumers, help to stabilize the overall marketplace and support the continued growth of the Xinhui Chenpi industry. In general, the results of this research will allow for the conversion of industry-based experience into data-driven decision-making tools for future use.

There are several limitations of this study though. The research primarily consisted of macro market research and price trends for the Xinhui Chenpi industry and did not present comparative data from other regions of production. This study has limitations regarding the time period in focus. Specifically, the study covered a time frame only up until 2023, and therefore, failed to fully include short-term post-pandemic market changes or the effects of the latest policies. Uncertainty persisted in calculating price volatility. For example, the classifications used for average price data did not provide additional clarity as to how the results were affected by seasonal supply shocks, consumer speculation, or online sales channels. Considering these limitations, a number of future research directions can be identified. First, follow up studies can use representative large brand manufacturers, mid-size manufacturers, and family-run workshops to conduct longitudinal tracking, comparing operational models, cost structures, and profit distributions amongst the different types of manufacturers. Second, the studies can be expanded to include monitoring Chenpi produced in Guangxi, Fujian and other producing areas to conduct cross-regions comparisons between Chenpi's quality, pricing, and competitiveness. Third, studies can identify price volatility from the various sales channels (E-commerce, offline wholesale, and collection) and how each channel affects price volatility. Fourth, studies can include consumer behavior questionnaires to assess the relationship of a consumer's price changes, cognition, brand recognition, and collection's demand. The extended long-term data will greatly enhance the body of knowledge and provide more practical recommendations for the long-term healthy growth of the Chenpi industry.

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