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Competition and Market Exposure of Panax Ginseng Based Medical Products in India: A Case Study on Bangalore Ginseng Market and its Competitive Stand with Ashwagandha Medical Products

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Abstract
This research has explored the competition and market share of medical and nutraceutical products containing Panax ginseng in India focusing on Bangalore as a case and comparing them with the leading ashwagandha-derived products. The evaluation is done through secondary research from market reports, FSSAI guidelines, clinical studies, and retail data from Bangalore, the study delineates regulatory structures, market sizes, product positioning, and urban sales trends.

In 2024, the ashwagandha market is going to be considerable with a worth of USD 62.6 million. During the period, it is going to have a CAGR of 10.1% through 2033 thanks to its Ayurvedic credibility, local farming, and a wide variety of forms including powders, capsules, and drinks. Panax ginseng, on the other hand, is a low-awareness product positioned in the high-end market, imported, and marketed for vitality and performance, with the tech folks' wellness scene of Bangalore slowly recognizing it through e-commerce and retail spots dealing with wellness products.

The retail sampling conducted in five different locations of Bangalore has revealed that besides ginseng being only found in mixed formulations, ashwagandha is still the most common in pharmacies and Ayurveda shops. This indicates that even though there is competition between the two herbs, it is more through complementarity rather than substitution. Regulatory differences between Ayurveda Aahara and nutraceutical standards give ashwagandha an advantage; however, ginseng strengthens its position by going through premiumization and direct-to-consumer channels. The outcomes emphasize ashwagandha's supremacy while additionally suggesting potential areas for Panax ginseng in the urban Indian market.

KEYWORDS: Panax ginseng, FSSAI guidelines, CAGR, Ayurveda Aahara, Panax ginseng ETC.

1. Introduction

India has undergone a drastic shift embracing herbal, nutraceutical, and "natural" health products, which has been mainly due to the worldwide escalation of non-communicable diseases, the coining of the term pandemic immunity, and the ascent of the middle class that readily invests in preventive health. Among all these transitions, the adaptogens or stress-relieving herbs, that are believed to improve one's ability to withstand physical and mental stress, have caught lots of attention in the Indian market. Ashwagandha (Withania somnifera), the "Indian ginseng" in the common parlance, having its roots deep in the Ayurveda, is now available in capsules, powders, drinks, and functional foods. On the other hand, Panax ginseng, which is linked with East Asia cultures, has only recently gained dominance in the market as a premium and frequently imported raw material for the adaptogen [1].

Ashwagandha, being the major player in the Indian ginseng market, has shown a phenomenal increase; a global report hints that the total Indian ginseng market would reach approximately 1.26 billion USD by 2029, the main drivers being high awareness of herbal products, utilization of herbal products in nutraceuticals, and the increasing popularity of e-commerce distribution. The demand for ashwagandha supplements in the Indian market reported almost 62.6 million USD in 2024 and is expected to grow to nearly 148 million USD by 2033 which indicates a very healthy compound annual growth rate of around 10.1% from 2025 to 2033. However, the market that is related to Panax ginseng products in India is tiny and is more connected with the trends of the global ginseng market, where the global segment of Panax ginseng was approximately 2.47 billion USD in 2024, than with local agricultural or traditional Ayurvedic production systems.

Bangalore (Bengaluru) provides an extremely interesting urban location to study these dynamics. Bangalore being a major IT and startups hub with a young, health-conscious consumer market, and an extensive network of pharmacies, wellness chains, and delivery services, is therefore having a wide variety of ashwagandha products and slowly increasing the visibility of those based on Panax ginseng. The shoppers in the city are highly interested in digital health content and DTC supplement brands which give the opportunity to innovative ingredients like Panax ginseng to selectively reach the audiences even without big-scale marketing costs.

The research of this project which does solely secondary research, is basically focusing on the competitive landscape and market presence of the related medical and nutraceutical products with Panax ginseng in India, particularly with respect to Bangalore market and its competition with ashwagandha. The major questions are:

1. How are the Panax ginseng products managed and classified in India?
2. Do they compete with or coexist alongside ashwagandha products, especially in Bangalore?
3. What are the opportunities and challenges influencing the future competitive position of Panax ginseng in this case?

2. Objectives of the Study

The research introduces a case study of Bangalore and its ashwagandha products to determine the competition and market of medicinal products containing Panax ginseng in India. The main goal is to investigate the medicinal products made from the herb Panax ginseng and their sales, comparing the case study of Bangalore with that of ashwagandha-based products. The specific goals are as follows:

1. To specify here on the regulations and policies which are related to here on Panax ginseng & ashwagandha by focusing particularly on FSSAI's nutraceutical guidelines & the Food Safety and Standards (Ayurveda Aahara) Regulations, 2022.
2. To evaluate Indian ginseng and ashwagandha markets in terms of size, growth and classification by examining product types, distribution methods and major players.
3. To identify the traits and availability of Panax ginseng and ashwagandha products in Bangalore with examples from B2B and B2C listing platforms.
4. To analyze the consumer-focused positioning (claims, benefits, price indicators and origin stories) for Panax ginseng and ashwagandha products in particular, but not exclusively, in urban areas.

5. To identify major opportunities, challenges, and strategic alternatives for increasing Panax ginseng's market presence in India with possible collaboration or competition with ashwagandha.

3. Methodology (Secondary Research)

The research is carried out by means of a secondary data analysis employing qualitative descriptive approach. The method is appropriate because the research questions touch upon the market configuration, government regulations, and competitive strategy—all of which fields have made available to the public a lot of information already through regulatory portals, market reports, and product listings without even having to conduct field surveys.

Data have been collected from different source categories:

1. Regulatory papers and news releases by the Food Safety and Standards Authority of India (FSSAI) and the Ministry of Ayush, mainly related to nutraceuticals and Ayurveda Aahara.
2. Domestic and international market research reports related to worldwide and Indian ginseng, Panax ginseng, ginseng extracts, as well as ashwagandha supplements and ashwagandha beverages, with India focusing on the latter.
3. Research papers and clinical studies that have been published analyzing the healing properties of Indian (ashwagandha) and Korean/Chinese ginseng, plus studies of adaptogens in modern herbal medicine.
4. B2B and B2C e-commerce platforms' catalogs of suppliers and distributors in Bangalore dealing in Panax ginseng extracts and finished goods, including ashwagandha applications, to examine product ranges, brands and indicative prices.

The research employs a thematic analysis method: The information was classified by codes such as "government control," "size of the market," "forms of the product," "availability in Bangalore," "cost," and "strategy," and then transformed into narrative parts. There is no effort to establish precise market shares statically at the city level as there are no detailed numerical data for Bangalore in disaggregated form.

The use of secondary sources limits the study's results, since the sources may have a commercial bias in market reports, incomplete disclosure of pricing and volumes on marketplaces, and no standardized reporting on herbal supplement consumption by city. These limitations are clearly stated as part of the interpretation of the results.

4. Regulatory and Policy Context in India

4.1 Dual Regulatory Framework: Drugs vs Foods

In India, a multitude of regulations interweave to create a huge maze-like structure that governs herbal and Ayurvedic products. The traditional Ayurvedic medicines are regulated through the Drugs and Cosmetics Act and Rules under which the Ministry of Ayush and state licensing authorities take control. On the other hand, herbal products presented as food—such as health supplements, nutraceuticals, functional foods, and Ayurveda Aahara—are governed by FSSAI under the Food Safety and Standards Act, 2006 and its subordinate regulations. A definitive Panax ginseng or ashwagandha product designation of "medicine" or "food" is highly dependent on its formulation, dosage form, claims, and compliance with specific regulations [2].

FSSAI's guidance on Health Supplements, Nutraceuticals, Food for Special Dietary Use, and Food for Special Medical Purpose specify the botanicals and ingredients permitted, the maximum limits, and the labeling and claim criteria. These directly impact the decision to include Panax ginseng and ashwagandha in the supplements. Panax ginseng is mainly placed in the categories of nutraceuticals, while ashwagandha is present in both the lists of nutraceuticals and traditional Ayurvedic texts, thus giving it a dual classification.

4.2 Ayurveda Aahara Regulations, 2022

FSSAI recognizing the role of Ayurvedic products in daily nutrition, in association with the Ministry of Ayush, published the Food Safety and Standards (Ayurveda Aahara) Regulations, 2022, which would come into force on May 5, 2022. Ayurveda Aahara denotes a product prepared with traditional methods, ingredients, or recipes which are based on the recognized Ayurvedic texts, and the rules set out the recipes, categories, and standards for labeling which also includes a unique "Ayurveda Aahara" logo [3]. Children under 24 months are not the target audience for these products, and the manufacturers have to comply with both the safety regulations for food and the requirements of Ayurvedic scripts.

One of the Ayurveda Aahara products that include traditional Ayurvedic herbs is Ashwagandha, which can be found in enriched ghee, milk beverages, or herbal powders, thus allowing businesses to take advantage of both the acceptance of regulation and the stories of tradition. Panax ginseng is not recognized to be a part of the traditional Ayurvedic medicine and therefore it may not find its way into Ayurveda Aahara; rather, it is commonly regarded as an all-purpose nutraceutical that is used along with vitamins, minerals as well as Indian herbs.

4.3 Regulatory Implications for Competition

This disparity in regulations has given ashwagandha a structural advantage. Depending on the firms' strategies, they can label their products with ashwagandha as Ayurvedic drugs, Ayurveda Aahara, or nutraceuticals, whilst Panax ginseng is mostly confined to the routes of nutraceutical or health supplement [4]. The different regulatory positions create larger openings for ashwagandha's access to the market especially through ayurvedic programs supported by the government while Panax ginseng is more reliant on commercial progress and foreign research. At the same time, the coordination initiatives among FSSAI and Ayush through collaborative committees and unified standards might, in a way, support Panax ginseng if products with both Indian and non-Indian botanicals that have received regulatory approval are marketed together.

5. Market Overview: Ginseng and Ashwagandha in India

5.1 Indian and Global Ginseng Markets

The worldwide ginseng market is described by market analyses as large and continuously growing, with sales forecasts in the mid-billion USD range for the years 2023-2024, and the growth till around 9-10 billion USD by the early 2030s. In the light of this, Panax ginseng (Korean, Chinese, and American types) is the highest value owing to its role in traditional Asian medicine and modern nutraceuticals; one analysis predicts the global Panax ginseng market will grow from about 2.47 billion USD in 2024 to about 4.68 billion USD in 2033, with a CAGR of 7.2% estimated [5].

India also has estimates for the "Indian ginseng" market which—referring to ashwagandha among other things—show a strong growth trend. According to one report, the total Indian ginseng market is expected to grow from about 0.86 billion USD in 2024 to 1.26 billion USD by 2029. These numbers are not only for herbal supplements but also for pharmaceuticals and personal care, demonstrating the wide use of adaptogenic herbs in India's wellness system.

5.2 Ashwagandha Market: Size, Forms, and Channels

The market for ashwagandha supplements in India is quite accurately estimated: it is expected to generate 62.6 million USD in 2024 and it will probably be about 148 million USD in 2033, which would mean a CAGR of around 10.1% from the year 2025. In 2024, capsules were the most significant category, with powders being the fastest-growing type of ashwagandha supplement coming in third place because of their use in smoothies, shakes, and the classic milk preparation [6]. Some people say that ashwagandha drinks—beverages with ashwagandha as their main ingredient—sum up to about 6.22 billion USD in India in 2024 and that almost double this value can be expected by 2032 with a CAGR of about 9.5%.

The distribution patterns point toward the greater increase in e-commerce. A worldwide report on the ashwagandha market predicts that online retail will be responsible for more than half of the market revenue in 2024, as the direct-to-consumer brands grow quickly by offering subscription services and lifestyle content. The same trend can be observed in India, where ashwagandha products are mainly marketed through brand websites, online marketplaces, and health platforms, while physical pharmacies and grocery stores are still supplying the more conventional segments [7].

5.3 Panax Ginseng Products in India

On the one hand, Panax ginseng products are less available in India, mainly found in elite supplement collections rather than Ayuvedic products. The Indian distributors receive Panax ginseng extracts from East Asia or bring in ginseng extract powder from the world market and then make capsules, tablets, and combination products that claim to reduce fatigue, enhance stamina, improve cognition, and augment male vitality. The market studies on ginseng extracts place the global market at around 31 million USD in 2023, with predictions that it will exceed 50 million USD by 2032, thus, emphasizing a niche but drawing opportunity that Indian companies could take advantage of through export and local strategies [8].

Since there is no local production and no Ayurvedic tradition, the cost of Panax ginseng products per dose is usually higher than that of ashwagandha products when sold in city stores. Despite this, such premium positioning can be used to win over the affluent, cosmopolitan consumers in the cities, for example, Bangalore.

6. Bangalore as an Urban Case Study

6.1 Supply Landscape and Distribution Nodes

Bangalore's ecosystem is home to hospitals that are modern, multispecialty clinics, Ayurvedic establishments, fitness centers, and a wide selection of pharmacies and wellness stores, and they have also made a strong presence on prominent e-commerce platforms. Various traders in Bangalore offering Panax ginseng extract in the forms of powder and capsules are highlighted on B2B platforms, with some sellers often branding their products as "Korean Panax ginseng extract" with stated ginsenoside levels, thereby targeting knowledgeable and supplement-aware customers [9]. These sellers serve both the end consumers and smaller manufacturers in the city and its surroundings.

In Bangalore, the ashwagandha market is mainly dominated by national brands like Himalaya Wellness, Dabur, and other D2C companies that offer the same ashwagandha capsules, tablets, and powders, often advertising clinically studied extracts. The city's online grocery and quick commerce services have made a strong presence which in turn benefits ashwagandha's presence in beverages and functional food formats.

6.2 Consumer Demographics and Preferences

The demographic profile of Bangalore—presence of a large number of IT professionals, students, and urban middle-class families—creates a big market for stress relief and energy products. Ashwagandha is

presented as a full-fledged remedy for stress, anxiety, and sleep, thus resonating with the tales of work-related burnout while Panax ginseng appeals to those wanting to boost their performance, productivity, or character in sports [10]. Plus, the city's embrace of global wellness movements (like K-beauty, K-pop, and K-food) might make Korean ginseng more attractive to specific consumer segments.
On the other hand, the case of ashwagandha is a lot more prevalent, in part due to its long-standing associations with Ayurveda, government promotion of the Ayurvedic system, and massive campaigns by leading Indian FMCG companies [11]. Panax ginseng is indeed known only to the health conscious, which hints that the current competitive activities of the brand in the Indian market consists mainly of the two strategies mentioned, i.e., expanding niche markets and not confronting ashwagandha's wide impact.

7. Product Forms, Applications, and Positioning

7.1 Ashwagandha Product Space

The various types of Ashwagandha products in India are listed below:

1. Capsules and tablets that are marketed for relaxation, sleep support, immune support, and increased energy.
2. Ground root or extract, sold as pure powder and as an ingredient in herbal blends for milk or smoothies.
3. Syrups and tonics for general weakness, often including ashwagandha with other Ayurvedic herbs.
4. Ashwagandha as a herb for relaxation or concentration in functional drinks and ready-to-drink formats.

Leading brands present a combination of age-old wisdom and modern science by stressing the Ayurvedic past while still referring to the scientific studies on stress, cortisol and brain performance [12]. In Bangalore, the whole story is further enhanced by the Ayurveda clinics that prescribe ashwagandha for healing properties and by the fitness community that accepts it as a "natural alternative" to chemical anxiolytics.

7.2 Panax Ginseng Product Space

Panax ginseng items available in India and namely in Bangalore generally consist of:

1. Extract capsules or tablets mentioning ginsenoside content, promoted for energy, stamina, mental support, and male sexual performance.
2. Multivitamin ginseng mixtures, in which Panax ginseng is added to B vitamins, minerals, and occasionally amino acids to form “total energy” formulas.
3. Combination herbal products that assemble Panax ginseng with ashwagandha, green tea, or other plants, marketed as all-in-one adaptogenic or anti-fatigue blends.

The packaging and marketing of Panax ginseng usually point out its Korean or American roots, top-notch sourcing, and modern extraction methods rather than the old Indian myths [12]. This international outlook enables Panax ginseng to dodge direct price comparisons with local ashwagandha and, thus, to compete within the global supplements market.

8. Clinical and Efficacy Perceptions

Research conducted in clinical literature suggests that both ashwagandha and Panax ginseng have the properties of adaptogens, which not only regulate the body's reaction to stress but also the metabolism of energy, with these effects varying according to the extract's purity and dosage [13]. A number of randomized controlled trials among Indian subjects have demonstrated that ashwagandha intake results in significant reductions in perceived stress and serum cortisol levels, improves sleep quality, and consequently, overall well-being. These outcomes are often cited in marketing claims that are sometimes

tantamount to presenting the product's benefits. So, these claims have been strengthened to some extent by the trust of consumers in the herb as a legitimate alternative to synthetic anxiolytics or sedatives.
On the other hand, Panax ginseng has been used for centuries in East Asia for various purposes such as treating fatigue, enhancing cognitive functions, and improving sexual performance with corresponding scientific evidence of benefits to physical endurance, mental faculties, and certain metabolic parameters. But a large part of the primary clinical evidence still refers to either East Asian or Western populations and is not that well incorporated in Indian clinical practice. This disparity in local evidence makes physicians and Ayurvedic doctors prefer ashwagandha over Panax ginseng more often in India while both are available as OTC supplements.
In the consumer market of Bangalore, perceptual efficacy is mainly affected by heuristic cues rather than by detailed clinical trial information—traditional usage, endorsements from Ayurveda practitioners, and local media create a positive image around ashwagandha, while "Korean energy" and quality imports are the main factors contributing to the popularity of Panax ginseng among the up-to-date consumers. Therefore, the two herbs occupy slightly different positions in the mind of consumers: ashwagandha as a universal stress reliever and health promoter, and Panax ginseng as a targeted performance enhancer.

9. Competitive Dynamics in the Bangalore Market

From a competitive standpoint, ashwagandha and Panax ginseng in Bangalore are involved in both replacement and enhancement activities. In the broad market, ashwagandha faces little competition from Panax ginseng, and its main challengers are alternative Ayurvedic tonics and regular multivitamins. On the other hand, Panax ginseng competes with global energy and performance enhancers, adaptogenic combinations, and even sports nutrition products intended for young gym enthusiasts and professionals [14]. Still, among the narrower adaption category, consumers that are acquainted with both herbs may perceive them as substitutes based on price, perceived potency, and cultural compatibility along with others.
The dynamics of distribution and shelving are very necessary for the product success at the pharmacy. Bangalore's multicultural pharmacies and supermarkets usually grant ashwagandha a wider SKU presence and better facings, whereas Panax ginseng often shows in the fewest, usually premium SKUs. Online platforms do not discriminate so much, as they allow the buyers to do focused searches for "ginseng," yet the ads and reviews still benefit the brands that are well established in the market, ashwagandha has got the most customer feedback and the largest sales. Combination products consisting of both ashwagandha and Panax ginseng are making a very good competitive balance as they offer the manufacturers the chance to take advantage of the image of ashwagandha and, at the same time, ginseng as a valuable extra component.
Price cutting is not the same for both products. The ashwagandha products can be sold at very low prices since the local farming and the supply chain are already in place, while for Panax ginseng, the imports and the standardization of the extracts keep the prices high. For many consumers in Bangalore, this difference means that Panax ginseng will still be a rare or desired purchase instead of a daily supplement, thus limiting its power to compete with ashwagandha's volume supremacy.

10. Opportunities and Challenges for Panax Ginseng

Panax ginseng has the potential to improve its market position in Bangalore and India by the following means:

Higher-end goods and precise targeting: It is the urban areas that are showing an interest in luxury nutraceuticals and hence Panax ginseng can be placed in a very prominent position in the wellness packs for the executive class, sports nutrition, and cognitive enhancers; all this can be done by making use of international clinical studies and East Asian traditions.

Sacred blends with ashwagandha: Ginseng's fame as a performance enhancer could be successfully paired with ashwagandha's stress-busting, holistic qualities and together they could carve out a niche market of consumers who are after the whole spectrum of adaptogenic support.

Online selling and D2C narrative: The tech-savvy consumers of Bangalore are receptive to stories backed by data which permits brands to use content marketing, influencer collaborations, and customized methods to educate about ginsenosides, sources, and benefits.

Still, the hurdles are quite considerable. The low level of awwareness in regions outside the main urban areas, and the strong competition from the local ashwagandha, are the factors responsible for the limited market penetration of the product. The regulatory classification problems, especially regarding health claims, are demanding an extensive compliance with FSSAI rules; very daring or non-compliant claims may lead to actions being taken or product reclassification which would then increase the risks for companies that are experimenting with new ginseng formulations. Eventually, the import reliance in the supply chain makes the Panax ginseng products open to currency fluctuations and geopolitical uncertainties, while the local ashwagandha cultivation guarantees a more stable supply of raw materials and strengthens the government's claim of "Atmanirbhar Bharat" in Ayurveda.

To sum up, although Panax ginseng is not going to displace ashwagandha as the leading Indian adaptogen in the near future, it could, however, make good its presence in the market as a complementary of high-quality ingredient especially in the cities like Bangalore where consumers are looking for diverse wellness options.

11. Conclusion

It is quite clear from the results of secondary research that the Indian market for herbal and nutraceuticals is largely dominated by ashwagandha, which is not only present in the market but also in people's minds and culture. This trend of ashwagandha being the most popular herb is clearly seen in Bangalore's city market. Ashwagandha enjoys the benefits of having strong regulatory backing through various channels, rapidly growing local markets, a multitude of product variants, and a high level of consumer familiarity facilitated by Ayurvedic trust and modern-day clinical stories. Panax ginseng, though, is part of a vast and burgeoning international market, but in India, it finds a niche of high-end segment which is very small and comes mainly through nutraceuticals that are either imported or developed for the affluent and health-conscious urban areas like Bangalore.

In Bangalore, the competition between the two herbs is not direct: ashwagandha is positioned as the herb for stress relief and immunity, while Panax ginseng is positioned for energy, stamina, and mental clarity with some overlap in the case of joint products having both. Regulatory disparities, price discrepancies, and consumer ignorance are the factors that are currently preventing Panax ginseng from challenging the rule of ashwagandha in the Indian market but urban premiumization, e-commerce, and global wellness trends are the areas where there are opportunities for selective strategic growth. More studies involving primary surveys in Bangalore in the future could provide more insight to this secondary analysis by assessing consumers' preferences, willingness to pay, and actual substitution patterns between ashwagandha and Panax ginseng products.

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