

## INDICAÇÕES GEOGRÁFICAS BRASILEIRAS: ENTRE RAÍZES LOCAIS E HORIZONTES GLOBAIS

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**RESUMO:** Este estudo analisa a notoriedade digital de cinco Indicações Geográficas (IGs) brasileiras - Queijo Canastra, Cachaça de Paraty, Vinho do Vale dos Vinhedos, Cerâmica de Porto Ferreira e Doces de Pelotas - a partir de dados do Google Trends, entre 2004 e 2025. O objetivo é compreender os padrões temporais e regionais de interesse público e suas implicações para a valorização e a promoção territorial desses produtos. A pesquisa adota abordagem exploratória e descritiva, examinando séries históricas, consultas relacionadas e distribuição geográfica do interesse digital. Os resultados revelam desigualdades de notoriedade entre as IGs, evidenciando que produtos vinculados à tradição artesanal e ao turismo experiencial, como o Queijo Canastra e o Vinho do Vale dos Vinhedos, apresentam maior visibilidade nacional e internacional. Em contrapartida, IGs de caráter regional ou industrial, como a Cerâmica de Porto Ferreira e os Doces de Pelotas, mantêm notoriedade concentrada localmente. Em suma, o monitoramento digital constitui ferramenta estratégica para mensurar reconhecimento simbólico e orientar políticas de comunicação territorial, contribuindo para a internacionalização das IGs e o fortalecimento de suas cadeias produtivas de forma sustentável e culturalmente enraizada.

**Palavras-chaves:** notoriedade, Google Trends, valorização territorial.

## BRAZILIAN GEOGRAPHICAL INDICATIONS: BETWEEN LOCAL ROOTS AND GLOBAL HORIZONS

**ABSTRACT:** This study examines the digital notoriety of five Brazilian Geographical Indications (GIs)—Queijo Canastra, Cachaça de Paraty, Vinho do Vale dos Vinhedos, Cerâmica de Porto Ferreira, and Doces de Pelotas—based on Google Trends data collected between 2004 and 2025. The objective is to understand temporal and regional patterns of public interest and their implications for the valorization and territorial promotion of these products. Using an exploratory and descriptive approach, the research analyzes historical series, related queries, and the geographic distribution of digital attention. The results reveal disparities in notoriety among the GIs, indicating that products linked to artisanal production and experiential tourism, such as Queijo Canastra and Vinho do Vale dos Vinhedos, achieve greater national and international visibility. In contrast, regionally oriented or industrial GIs, such as Cerâmica de Porto Ferreira and Doces de Pelotas, exhibit locally concentrated recognition. The study concludes that digital monitoring serves as a strategic tool for measuring symbolic recognition and guiding territorial communication policies, thereby supporting the

internationalization of Brazilian GIs and strengthening their production chains in a sustainable and culturally embedded manner.

**Keywords:** notoriety, Google Trends, territorial valorization.

## 1 INTRODUCTION

Geographical indications (GIs) represent fundamental instruments for valuing local products, promoting authenticity, preserving regional culture, and maintaining traditional production practices associated with a specific territory. This recognition confers on products not only a distinction of origin but also a seal of quality and collective identity, reinforcing the link between the produced good and the sociocultural and environmental context in which it is generated.

According to Guareschi, Mancini, and Arfini (2023), production systems linked to geographical indications (GIs) play a relevant role in achieving sustainable development goals (SDGs) by integrating traditional knowledge with technological and organizational innovations that respect the environment and strengthen local socioeconomic development. This integration contributes to the long-term sustainability of the communities involved, promoting social inclusion, the responsible use of natural resources, and income generation on fair and balanced bases.

On a global scale, GIs act as distinctive signs of quality and origin and are capable of attracting investment, stimulating tourism, strengthening local production chains and, consequently, generating positive impacts on regional development, especially in rural or peripheral areas (Crescenzi, et al., 2023). Furthermore, GIs contribute to the consolidation of territorial marketing strategies, reinforcing the competitiveness of products in the national and international markets.

The concept of notoriety, as discussed by Aubin et al. (2021), refers to the degree of knowledge that a specific audience has about a brand, product, or geographical indication. Unlike reputation, which involves subjective perceptions related to the quality and symbolic value of a good, notoriety is limited to the cognitive dimension of recognition, that is, the proportion of people who have heard of a

particular product. While reputation is consolidated in the long term and depends on the historical and cultural perceptions of consumers, notoriety is a short-term element that is essential for immediate visibility and for the insertion of new products into competitive markets. Thus, notoriety constitutes a strategic prerequisite for a product to achieve a consolidated reputation, especially in the context of geographical indications, where recognition of the name and origin is a fundamental condition for commercial and symbolic success.

In this sense, digital media and public interest monitoring tools, such as Google Trends, play a central role in building and strengthening the notoriety of products with geographical indication potential. Online visibility allows for continuous and real-time measurement of a product's level of recognition, revealing search patterns, seasonality, and the geographic reach of consumer attention. When analyzed from a strategic perspective, this information can guide territorial marketing campaigns, public policies for regional valorization, and certification initiatives, helping to reduce the information asymmetry between producers and consumers. Thus, the use of digital metrics complements traditional approaches to measuring notoriety, offering empirical tools to understand the impact of communication and identity narratives on the diffusion of territorial products in the digital space, ultimately strengthening their symbolic and commercial position in local and global markets.

In the Brazilian context, geographical indications (GIs) are highly relevant as cultural and economic expressions of the country's different regions. They reflect Brazil's sociocultural and environmental diversity and translate knowledge, techniques, and traditions that constitute the intangible heritage of the producing communities. In this sense, understanding the public interest and perception of these products—especially on

digital platforms and social networks, where narratives and reputations are built—becomes an essential strategy. This understanding can offer valuable insights for planning public policies, promoting territorial marketing, and strengthening the value chains associated with GIs, thus contributing to a more sustainable, inclusive, and culturally rooted development model.

Obtaining a geographical indication significantly contributes to the notoriety of products and territories, conferring formal recognition and legitimacy in the market. This seal of origin acts as an instrument of competitive differentiation, highlighting unique attributes related to history, the natural environment, and local production practices. Moreover, the notoriety generated by a GI strengthens the collective reputation of producers and expands the visibility of the territory on national and international scales, thus promoting tourism, gastronomy, and other related economic activities.

Furthermore, the process of building notoriety is closely linked to the management of territorial image and communication, involving actions of promotion, certification, and consumer education. In this way, the consolidation of a geographical indication (GI) not only adds economic value to products but also projects the territory as a reference for quality and authenticity, reinforcing its cultural identity and contributing to the sustainable and integrated development of local communities (Silva; Giraldi, 2025).

This study aims to analyze the temporal and regional interest of the public in relation to five Brazilian Geographical Indications—Canastra Cheese, Cachaça from Paraty, Wine from Vale dos Vinhedos, and Ceramics from Porto Ferreira and Sweets from Pelotas—in an attempt to understand search patterns and informational behavior that can support strategies for valuing, promoting and disseminating these products.

## 2 MATERIALS AND METHODS

This study adopts an exploratory and descriptive approach, based on the analysis of

secondary data extracted from the Google Trends platform, to examine the temporal and regional public interest related to five Brazilian geographical indications (GIs): *Canastra Cheese*, *Cachaça from Paraty*, *Wine from Vale dos Vinhedos*, *Ceramics from Porto Ferreira* and *Sweets from Pelotas*.

Data collection was performed using specific search terms (*search*). *The terms* were selected to directly and objectively represent each product. This methodological choice sought to preserve linguistic precision and avoid excessive generalizations, allowing observation of search behavior specifically regarding the expressions used by the public in search engines. The selection of terms considered the most widely used form in official communications and institutional sources, ensuring consistency with the social and commercial use of the terms.

Data concerning the relative volume of searches recorded between January 2004 and October 2025 were extracted, a period encompassing a historical series of more than two decades. The values provided by Google Trends are normalized on a scale of 0 to 100, where 100 represents the point of greatest popularity for the term in a given time interval and location. This data structure allowed for the identification of long-term trends, seasonal variations, and periods of greater or lesser digital visibility for each of the analyzed Instagram accounts.

The analysis was conducted at two distinct geographical levels:

1. Brazil – to observe the internal regional distribution of interest in products, highlighting the federative units and cities with the highest search volume; and
2. Globally, to investigate the international presence and recognition of Brazilian geographical indications (GIs), the countries with the highest incidence of interest and potential global connections should be identified.

Beyond the temporal and geographical dimensions, the related queries provided by the platform were examined to identify thematic associations, consumption contexts, and

semantic patterns that emerged from user searches. This complementary qualitative analysis allowed us to understand how products with geographical indication are perceived and contextualized in the digital environment, revealing links with cultural, gastronomic, and tourism aspects.

The data obtained were organized and analyzed in a descriptive and comparative manner, allowing the identification of behavioral patterns, temporal fluctuations, and regional differences in public interest. This approach enabled an indirect assessment of the digital visibility and notoriety of geographical indications, considered here as a complementary indicator of social and symbolic recognition.

The results of this analysis offer empirical support for improving strategies for promotion, communication, and territorial enhancement, contributing to the strengthening of production chains associated with Brazilian geographical indications (GIs) and to the expansion of their presence in national and international markets.

The use of Google Trends as a tool for analyzing digital interest presents significant potential for investigations on a global and regional scale but also requires methodological caution regarding the interpretation and representativeness of the data. As discussed by Segev (2018), the main potential of the instrument lies in its ability to reveal informational flows and patterns of public attention between countries and regions, making it possible to understand the symbolic circulation of products, ideas, and brands in

international contexts. However, the work highlights limitations intrinsic to the platform, such as the fact that it displays only the most popular queries, without offering access to the complete set of searches, which may restrict the analytical scope of certain phenomena.

Furthermore, geographical asymmetry results from the adoption of alternative search mechanisms in countries such as China and Russia, which compromises global comparability. Another point of attention concerns the nature of search data, which expresses users' intentions or curiosities but not necessarily actual consumption behaviors; thus, triangulation with other empirical sources is needed. Even so, Segev (2018) emphasizes that, if applied rigorously and with awareness of their limitations, analyses based on Google Trends can offer valuable contributions to understanding international information flows and the symbolic visibility of cultural and territorial assets, such as geographical indications.

The geographical indications analyzed in this study, encompassing agri-food and artisanal products from different Brazilian regions, are presented in Table 1 below. The table contains information concerning the type of indication, the municipalities covered, and the main general characteristics of each producing territory. The selection of these GIs reflects the diversity of productive and sociocultural contexts present in the country, highlighting how environmental, technical, and identity attributes are articulated in the construction of the notoriety and territorial value of the products.

**Table 1.** Geographical indications were analyzed, and the main characteristics were IP, indication of origin, and DO, designation of origin.

IG	Type	Municipalities Covered	UF	General Characteristics
Canastra Cheese	IP	Piumhi, Vargem Bonita, São Roque de Minas, Medeiros, Bambuí, Tapiraí and Delfinópolis	MG	Located within the Serra da Canastra region, the area presents edaphoclimatic conditions favorable to the production of artisanal raw milk cheeses with their own sensory identity. The Geographical Indication (GI) values traditional knowledge, strengthens small producers, and expands national recognition of the product.
Cachaça from Paraty	IP	Paraty	RJ	Handcrafted production in a still, characterized by quality control and the influence of the Atlantic Forest microclimate, giving the beverage a distinct sensory profile. The Geographical Indication (GI) is associated with territorial appreciation, cultural tourism, and the historical traditions of the region.
Wine from the Vale dos Vinhedos (Valley of the Vineyards)	DO	Bento Gonçalves, Garibaldi and Monte Belo do Sul	RS	A region with a wine-growing tradition and favorable conditions for cultivating high-quality grapes. The Designation of Origin (DO) establishes technical criteria for production and authenticity, strengthening the recognition of Brazilian wine and regional wine tourism.
	IP	Bento Gonçalves, Garibaldi and Monte Belo do Sul	RS	A benchmark among Brazilian Geographical Indications (GIs), with a productive organization focused on improving the wine sector and territorial management. The GI stimulates regional development and the appreciation of local identity.
Ceramics from Porto Ferreira	IP	Urban perimeter of Porto Ferreira	SP	A hub specializing in the production of artistic and utilitarian ceramics, favored by the availability of quality clays and the regional production tradition. The Geographical Indication (GI) integrates design, innovation, and territorial identity to strengthen the local creative sector.
Pelotas Sweets	IP	Arroio do Padre, Capão do Leão, Morro Redondo, Pelotas, São Lourenço do Sul and Turuçu	RS	Artisanal production of traditional sweets recognized for its quality and strong cultural identity. The Geographical Indication (GI) contributes to the preservation of production techniques, regional gastronomic heritage, and tourism associated with the confectionery tradition.

**Source:** Author's own elaboration (2025).

The geographical indications analyzed highlight the territorial and productive diversity of Brazil, which is associated with differentiated quality, consolidated artisanal practices, and regional valorization strategies. Thus, they strengthen the competitiveness of local products, promote socioeconomic sustainability, and favor the construction of recognizable territorial identities.

### 3 RESULTS AND DISCUSSION

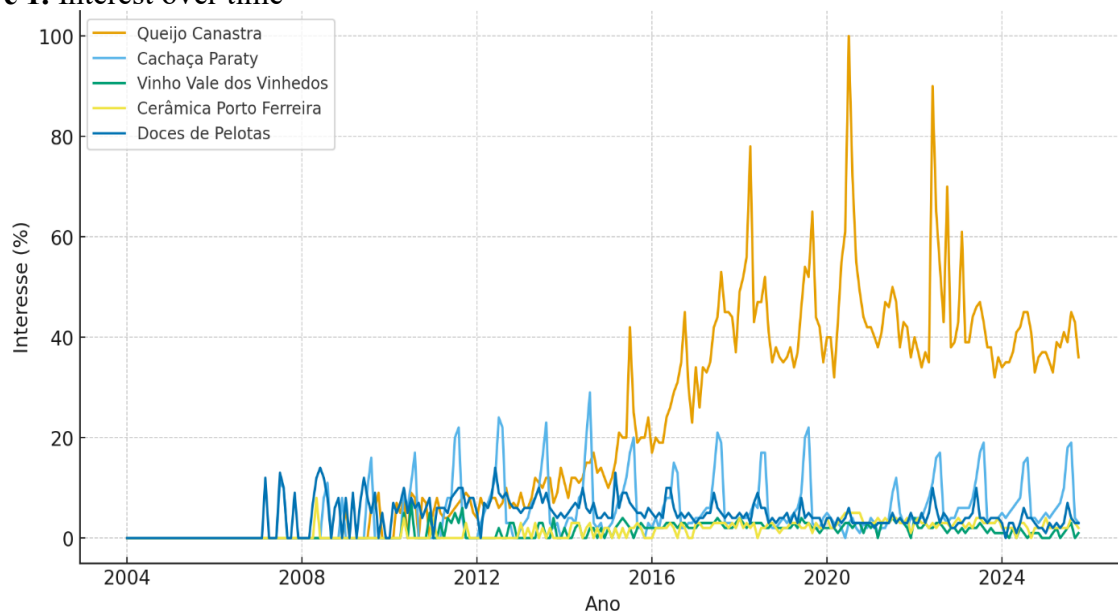
Spatial analysis of search data obtained through Google Trends reveals distinct patterns of geographic interest in relation to the five geographical indications (*GIs*) investigated—Canastra Cheese, Cachaça from Paraty, Wine from Vale dos Vinhedos, Ceramics from Porto Ferreira and Sweets from Pelotas.

The temporal analysis of global interest in Brazilian geographical indications (Figure 1) reveals significant variations among the products, reflecting distinct stages of consolidation and symbolic reach. Canastra Cheese showed the highest performance, with an average of 21.8 points and a standard deviation of 20.75, reaching its peak in July 2020, when the product gained wide international visibility, possibly associated with the strengthening of narratives of authenticity

and the appreciation of artisanal foods during the pandemic. This behavior contrasts with that of Cachaça de Paraty, whose average of 4.81 and standard deviation of 5.85 indicate moderate and episodic interest, peaking in August 2014, a period in which the Brazilian distillate received prominence in events and publications about typical national beverages.

On the other hand, the Wine from Vale dos Vinhedos and the Ceramics from Porto Ferreira presented low average values, 1.31 and 1.42, respectively, with equally small deviations, revealing stability at levels of restricted and sporadic interest. Peaks occurred in July 2010 and May 2008, which may be related to the dissemination of news about the official recognition of the GIs and localized promotional events. Moreover, the number of Sweets from Pelotas, with an average of 4.28 and a deviation of 3.22, peaked in June 2008, suggesting that heritage recognition and the regional confectionery tradition mobilized significant attention during that period. Overall, the data reveal that the temporal trajectory of Brazilian GIs in the global scenario is marked by moments of concentrated visibility and short duration, indicating the need for continuous promotion strategies and more consistent internationalization.

**Figure 1.** Interest over time



**Source:** Adapted from Google Trends (2025).

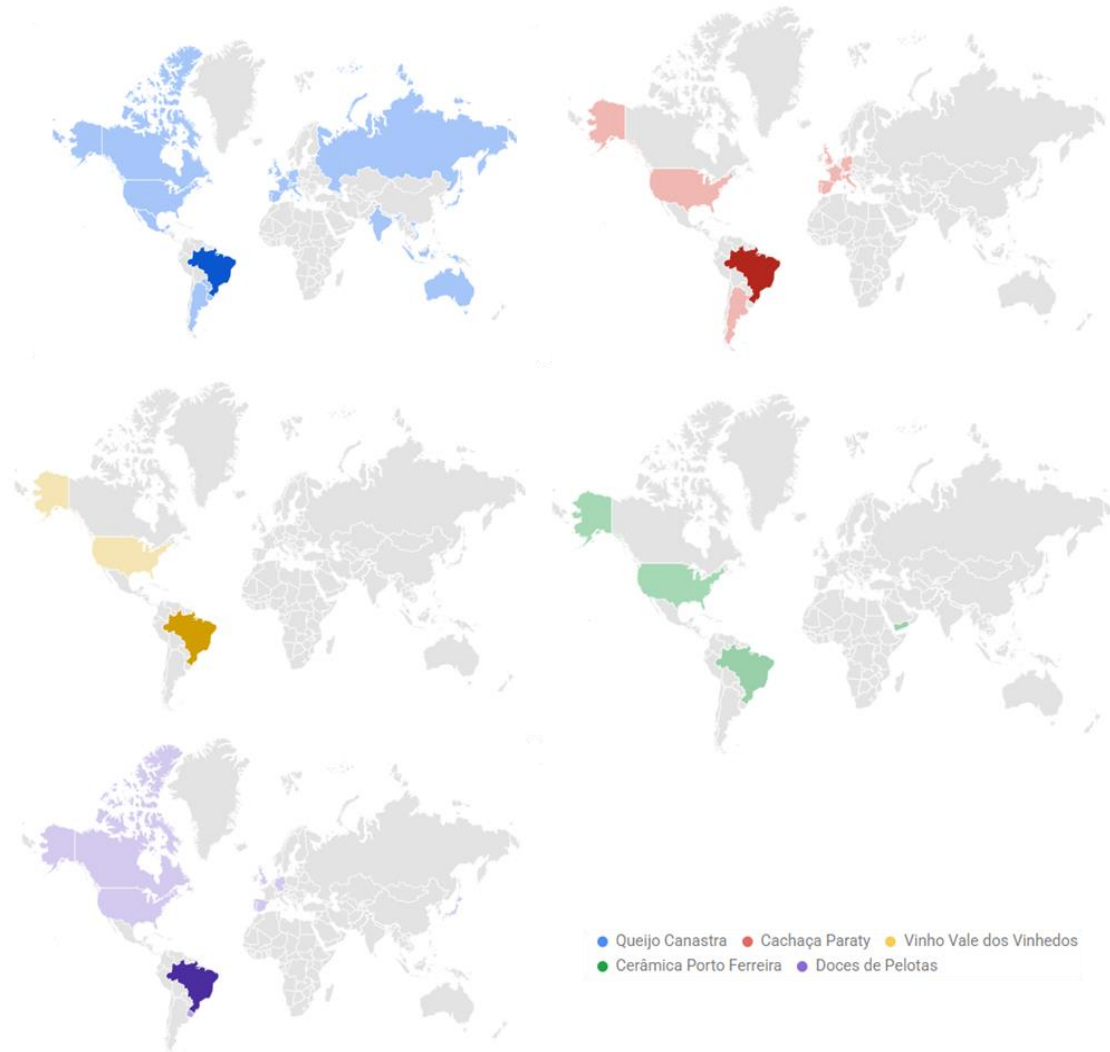
The geographic distribution of digital interest in Brazilian geographical indications (GIs), as evidenced by Google Trends data, reveals heterogeneous patterns of visibility and reach, reflecting different stages of symbolic and market consolidation among the products analyzed. The predominance of searches in Brazil demonstrates the domestic centrality of these cultural goods, but the presence of interest in other countries—notably in the Americas and Western Europe—point to a selective international diffusion, conditioned by factors such as Brazilian diasporas, gastronomic tourism, and the growing prestige of Brazilian cuisine and crafts abroad. Canastra Cheese stands out as the product with the greatest global notoriety, with digital interest present on multiple continents, signaling its potential for internationalization as an icon of Brazilian agri-food authenticity. Paraty Cachaça, although showing a similar distribution, shows a higher density of searches in countries with historical and cultural ties to Brazil, which reinforces its identity role and its vocation for specialized markets of artisanal and premium beverages.

On the other hand, the wine from the Vale dos Vinhedos region exhibits a visibility pattern concentrated in wine-producing regions, such as the United States and France, suggesting a symbolic dialog between producing territories and a more technical and segmented global audience. Moreover, the ceramics from Porto Ferreira and the sweets from Pelotas show a predominantly national digital reach, with limited international expression, evidencing an initial stage of notoriety and dependence on more structured dissemination strategies. These results corroborate the importance of digital metrics as

an instrument to evaluate the recognition and territorial diffusion of geographical indications (GIs), allowing the identification of inequalities in the symbolic internationalization process. Thus, the use of tools such as Google Trends contributes not only to monitoring digital visibility but also to the planning of public policies and territorial marketing strategies aimed at consolidating Brazilian GIs in the global market.

The analysis of the global distribution of digital interest (Figure 2) in Brazilian geographical indications reveals an asymmetrical dynamic of awareness, marked by different degrees of recognition among products and territories. This inequality shows that digital reach is not only a result of the intrinsic quality of the goods but also of structural, institutional, and symbolic factors that condition their insertion into global value circuits.

This perspective corroborates the distinction proposed by Aubin. et al. (2021) differentiate between notoriety and reputation, where the former corresponds to the extent of public knowledge about a product and the latter to the qualitative perception of its authenticity and cultural value. In the case of Brazilian GIs, products such as Canastra Cheese and Vale dos Vinhedos Wine demonstrate a trajectory of consolidated notoriety, approaching international recognition sustained by certification and territorial promotion strategies. In contrast, products such as Porto Ferreira Ceramics and Pelotas Sweets remain restricted to the national sphere, revealing disparities in the capacity for symbolic and market construction between different regions and productive sectors.

**Figure 2.** Global Distribution of Interest

Source: Google Trends (2025).

In this context, digital media and public interest monitoring tools, such as *Google Trends*, are strategic instruments for understanding and strengthening the notoriety of Instagram accounts (IGs). Embedded in the contemporary logic of the attention economy, these platforms make it possible to quantify the visibility and symbolic engagement of territorial products on a global scale. By reflecting search patterns, frequency, and the geographic origin of mentions, digital interest becomes an empirical indicator of symbolic circulation and cultural capital associated with IGs. However, this visibility is mediated by digital narratives, marketing policies, and informational flows that do not always correspond to the authenticity or sustainability of the territories of origin. Thus, digital

notoriety should be understood not only as a component of cultural and economic competitiveness but also as a field of discursive dispute in which the symbolic value of products is continuously negotiated among producers, consumers, and media intermediaries.

On the other hand, a critical approach is necessary regarding the apparent neutrality of digital indicators. Online visibility, while useful for measuring brand awareness, tends to reproduce structural asymmetries of power and representation, favoring products originating from regions with greater technological connectivity, marketing investment, and access to international markets. This inequality can reinforce symbolic hierarchies and render invisible those located in territories less integrated into global dynamics. Furthermore,

the expansion of digital brand awareness must be accompanied by policies that ensure authenticity, traceability, and social equity in the production chain, avoiding the trivialization or misappropriation of local cultural heritage. Therefore, future analytical approaches can benefit from comparative studies between those from different countries, longitudinal analyses of digital behavior, and integrations between online visibility data, exports, and tourism flows. Such perspectives would allow for a more comprehensive understanding of how the digital environment articulates with the symbolic and economic internationalization of those as territorial expressions of identity, culture, and sustainability.

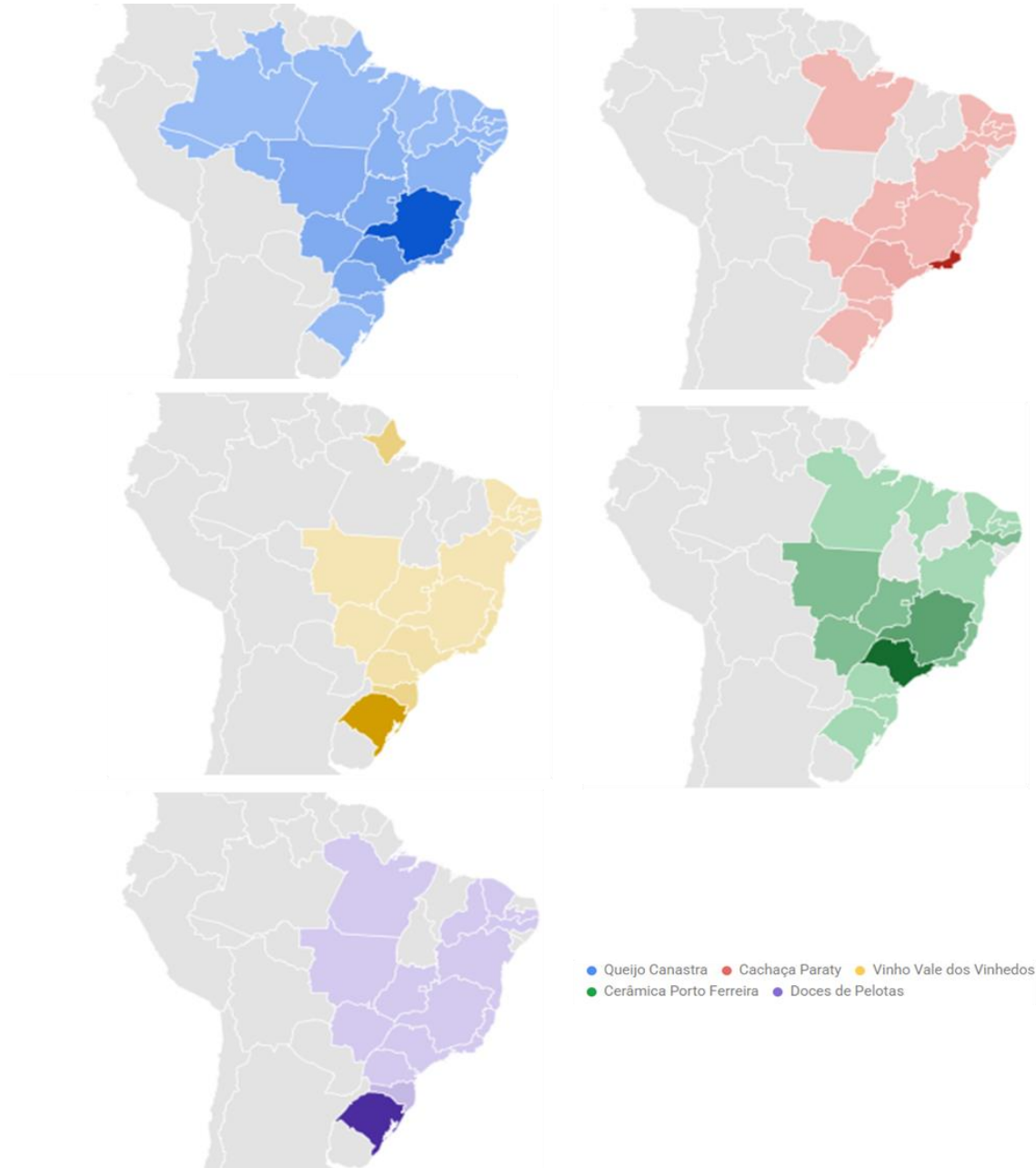
The nationwide analysis (Figure 3) reveals a territorial pattern strongly anchored in the geographic and cultural origin of Brazilian geographical indications (GIs), reflecting the close relationships among regional identity, production practices, and symbolic recognition. The maps show that digital interest is concentrated in the producing regions, suggesting that the notoriety of GIs is still predominantly structured around local and regional references rather than national dynamics. This behavior reinforces the idea that the digital visibility of GIs is directly linked to territorial belonging and cultural legitimacy built in the place of origin, aspects that, according to Fracarolli (2021) and Bartoli, Bonetti and Mattiacci (2022), constitute the core of the authenticity of geographical indication products.

Canastra cheese, for example, shows high search density in Minas Gerais and diffusion to neighboring states, highlighting its consolidation as a symbol of Minas Gerais'

agri-food identity, with expansion to nearby consumption and commercialization areas. Paraty cachaça, in turn, demonstrates a more localized pattern, concentrated on the southern coast of Rio de Janeiro, revealing a recognition strongly linked to artisanal tradition and regional tourism. Moreover, Vale dos Vinhedos wine confirms the centrality of the Serra Gaúcha region as a reference for national viticulture, with moderate projection in southeastern states, possibly associated with the flow of tourists and consumers of quality wines.

The ceramics of Porto Ferreira exhibit a pattern of interest that is essentially from São Paulo, consistent with its historical position as a center of artisanal and industrial production, suggesting a consolidated regional reputation, although with limited diffusion beyond state borders. Finally, the sweets of Pelotas maintain a concentrated focus in Rio Grande do Sul, expanding modestly to the Southeast and Midwest, which reinforces their strongly local cultural identity, linked to the confectionary tradition of southern Brazil and the heritage recognition of their production.

These spatial patterns reveal that although geographical indication (GI) plays a relevant role in valuing local territories and knowledge, their symbolic recognition in the digital space still presents a regionalized configuration, marked by limited reach and a concentration of interest in their areas of origin. This scenario suggests the need for integrated territorial communication and digital promotion strategies that are capable of expanding the visibility of these GIs to national and international audiences without compromising their authenticity and identity ties to the producing territories.

**Figure 3.** National Distribution of Interest

Source: Google Trends (2025).

The national distribution of digital interest in Brazilian geographical indications significantly reflects the socioterritorial and identity dynamics that structure the appreciation of products of origin in the country. The strong concentration of interest in producing regions reveals that the notoriety of GIs is still deeply linked to territorial roots and local sociocultural practices, as proposed by the localized agri-food systems (SIAL/LAFS) approach. This pattern shows that the symbolic construction of a GI depends both on

productive materiality and on the collective memory and cultural capital accumulated around the territory. Thus, regional digital visibility not only demonstrates market recognition but also expresses a process of identity affirmation, in which the inhabitants and local actors themselves act as mediators of reputation and guardians of authenticity. However, the predominance of GIs located in the South and Southeast regions, which are more densely represented in the interest maps, indicates the existence of structural

asymmetries in the diffusion and consolidation of the indications, resulting from historical differences in infrastructure, investment, and sectoral organization.

Geographical indications (GIs) on a national scale become fundamental. The limited diffusion observed beyond the regions of origin suggests that many indications still lack coordinated territorial marketing plans and integrated public policies that articulate identity, promotion, and consumption.

Digital tools, such as targeted campaigns and audiovisual narratives that associate geographical indications (GIs) with Brazilian cultural and gastronomic heritage, can act as vectors for broader recognition, strengthening the image of producing regions and promoting conscious consumption. In this process, the role of institutions such as the National Institute of Industrial Property (INPI), the Ministry of Agriculture and Livestock (MAPA), and producers' associations is crucial, as building national notoriety requires interinstitutional coordination and investments in strategic communication. Furthermore, gastronomic and cultural tourism presents itself as an effective mechanism for symbolic diffusion, allowing for the sensory and territorial experience of GIs and expanding their insertion into the Brazilian collective imagination.

A critical approach to the national distribution of digital interest must recognize that regional centralization can become an obstacle to the symbolic and economic sustainability of geographical indication (GI) if recognition remains restricted to local contexts. Dependence on regional notoriety can limit the potential for value aggregation and market diversification, perpetuating historical inequalities between Brazilian regions. Thus, expanding the visibility of GIs should be understood as part of a strategy for territorial cohesion and sustainable development, in which the valorization of traditional products contributes to reducing regional asymmetries

and strengthening local economies. In this sense, future research should compare the digital, economic, and social performance of GIs across different regions of the country and explore how factors such as connectivity, tourism, and public policies influence their capacity for symbolic projection and territorial competitiveness.

In general, the spatial distribution of the data confirms that digital interest in Brazilian geographical indications is predominantly domestic, even though products such as *Canastra Cheese* and *Paraty Cachaça* show signs of emerging international projection. This finding suggests that although GIs play a relevant role in valuing local identities, their effects on global notoriety remain limited, requiring more structured internationalization and digital communication strategies.

The results also highlight the importance of territorial belonging and regional cultural dynamics in building the visibility of products with geographical indication (GI). Thus, the observed digital recognition reflects not only consumption but also the pride and symbolic identification of communities with their traditional products.

On the basis of the popularity data (0 to 100) of the terms associated with geographical indications (Table 2), it is possible to understand how consumers and the general public symbolically relate to each territory and product. Google searches reflect not only economic interest but also the dynamics of cultural belonging, tourism, symbolic consumption, and the digital mediation of territorial identity.

The five geographical indications analyzed—Pelotas Sweets, Porto Ferreira Ceramics, Vale dos Vinhedos Wine, Paraty Cachaça, and Canastra Cheese—represent different vectors of territoriality linked to gastronomy, crafts, and wine tourism, configuring cultural landscapes of heritage value.

**Table 2.** Search terms related to GIS.

<b>Geographical Indication Related Search Terms (Popularity)</b>	
Pelotas Sweets	Pelotas sweets Porto Alegre (100); sweets Porto Alegre (100); Pelotas sweet (81); Pelotas RS (80); sweet recipes (73); Pelotas sweets in Porto Alegre (59); Fenadoce (33); Fenadoce Pelotas (32).
Porto Ferreira Ceramics	Porto Ferreira ceramics (100); ceramics (100); Porto Ferreira store (51); Porto Brasil Porto Ferreira (38); Porto Brasil ceramics (38); Porto Brasil (38); Porto Ferreira sp (33); scalla cerâmica (27); scalla porto ferreira (27).
Wine Vale dos Vinhedos	wine valley (100); wine spa (57); wine spa hotel (35); Bento Gonçalves (19); Bento wine spa (16); wines (11); Bento Gonçalves wine spa (10).
Paraty Cachaça	Paraty Cachaça Festival (100); Festival (99); Cachaça Festival (90); Paraty Cachaça Festival (87); Cachaça from Paraty (47); Cachaça Festival (26); Paraty Festival (19); Cachaça Festival in Paraty (16); Gabriela Cachaça (12); Gabriela Cachaça Paraty (12); Cachaça Festival in Paraty (11); Paraty Inn (9); Paraty rj (9); Paraty Cachaça Festival 2023 (8); Paraty Cachaça Festival 2023 (8); Cachaça Festival 2023 (8); Paraty Cachaça Festival 2022 (7).
Canastra Cheese	Canastra cheese (100); Canastra mountain cheese (64); Canastra mountain cheese (60); Canastra mountain (57); Canastra mountain (57); Minas cheese (34); Minas cheese (22); Canastra cheese price (17); Canastra cheeses (13); cheeses (12); Canastra semicured cheese (11); Semicured cheese (11); Where to buy Canastra cheese (10); Canastra cheese recipe (10); Canastra cheese Minas Gerais (8); Cheese bread (8); Canastra cheese bread (7); How to make Canastra cheese (7); How to make cheese (7); Canastra cheese recipe (6); Canastra cheeses (6); Where to buy Canastra cheese (5); Cured cheese (5); Cheese bread (5); Canastra cheese price (5).

**Source:** Adapted from Google Trends (2025)

Analyzing the digital popularity of terms associated with geographical indications (GIs) offers an innovative perspective on how territories and their products are symbolically appropriated by the public. On the basis of Google Trends data, it is possible to observe that online searches transcend mere economic interest, reflecting cultural, affective, and touristic dimensions that structure the territorial identity of GIs. In this sense, the digital environment functions as a space of symbolic mediation, in which consumers construct meanings and connections with products of origin, reinterpreting them in contexts of consumption, memory, and experience.

The five selected geographical indications (GIs) represent different expressions of this relationship between territory, product, and culture, allowing us to understand how search dynamics reveal distinct forms of territoriality, intertwining tradition, market, and identity, namely:

### 3.1 Sweets from Pelotas (RS)

The high popularity of the terms “Pelotas Porto Alegre sweets” (100) and “Porto Alegre sweets” (100) highlights an urban-regional consumption relationship, in which Porto Alegre, as the state capital, acts as the

main market for the dissemination and consumption of Pelotas products. This pattern reinforces the thesis that the appreciation of the GI depends on the territorial connectivity between the place of origin (Pelotas) and regional consumer centers.

The term “fenadoce,” with popularity ratings of 33 and 32, indicates the role of the cultural event as a mediator of memory and tourism promotion of geographical indication (GI). This pursuit is associated with the experiential and touristic dimension of the product, where consumption goes beyond taste and is embedded in a logic of intangible heritage and collective celebration.

The predominance of terms that relate sweets to recipes (“sweet recipes”, 73) also points to domestic and affective appropriation, reinforcing the symbolic and culinary dimension of the territory of origin.

### 3.2 Ceramics from Porto Ferreira (SP)

The GI for Porto Ferreira Ceramics presents a clearly commercial and industrial search profile, as evidenced by the high popularity of the terms “cerâmica porto ferreira” (100) and “cerâmica” (100). This dual semantic dominance reveals that the GI is perceived more as a product and design brand than as a cultural asset.

The expressions “Porto Brasil” and “Scalla”, with average popularity (27–38), correspond to specific companies, suggesting that the visibility of the GI is shared with private brands. This denotes a strong hybridization between territorial identity and business identity, a common trait in industrialized regions.

The term “loja Porto Ferreira” (51) points to searches motivated by direct commerce and consumption, indicating the presence of shopping tourism and territorialized e-commerce—contemporary phenomena of the “experience economy”.

### 3.3 Wine from the Vale dos Vinhedos (RS)

Searches related to Vale dos Vinhedos highlight the term “wine valley” (100), which

synthesizes a symbolic territorial construction associated with wine tourism and the European imagery of wine. Secondary terms, such as “wine spa” (57) and “wine spa hotel” (35), reinforce the association between the GI product and the high-end tourism experience, linking the territory to the notion of well-being, luxury and enogastronomy.

The name of the host city, Bento Gonçalves, appears less popular (19), showing that the symbolic territory of the GI surpasses administrative boundaries. The Vale dos Vinhedos therefore constitutes a space of territorial branding, where the tourist experience and symbolic consumption override political geography.

### 3.4 Cachaça from Paraty (Rio de Janeiro)

Among those analyzed, the GI Cachaça de Paraty presents the most strongly occasional and seasonal pattern. The term “festival cachaça Paraty” (100) and its variations largely dominate searches, suggesting that public interest is concentrated around festive events, such as the traditional Festival da Cachaça, Cultura e Sabores de Paraty.

This association indicates a fusion between product and event, where cachaça acts as an identity symbol of the city and a mediator of cultural and tourist practices. The terms “pousada Paraty” and “Paraty RJ” (9) reinforce the interdependence between GI and historical-cultural tourism, making cachaça a symbol of hybrid territoriality, which combines artisanal tradition, tourism and heritage.

### 3.5 Canastra Cheese (MG)

The Canastra Cheese Geographical Indication (GI) shows the greatest diversification of search terms, revealing broad national recognition and consumer engagement across multiple dimensions (purchase, origin, production, recipe, and tourism).

The term “queijo da Canastra” (100) leads, followed by close variations, such as “queijo da Serra da Canastra” (64) and “queijo serra da Canastra” (60), which reinforce the direct association between product and

geography. This lexical persistence demonstrates strong territorial anchoring in the brand, in contrast to more commercial GIs such as Porto Ferreira.

The less popular terms, such as “Canastra cheese price” (17) and “where to buy Canastra cheese” (10), indicate growing market interest, suggesting the expansion of direct and digital sales. The presence of terms such as “Canastra cheese bread” (7) and “Canastra cheese recipe” (10) signals a culinary and cultural hybridization, in which the product integrates into everyday Brazilian gastronomy.

The Canastra case illustrates the maturity of geographical indication as a sign of quality, identity and belonging, combining economic, cultural and affective dimensions.

Comparative data analysis reveals three central axes of the relationship between digital searches and the territorial context of geographical indications. The first, of a cultural and affective nature, is represented by the GIs *Doces de Pelotas* (Pelotas Sweets) and *Cachaça de Paraty* (Paraty Cachaça), in which references to events, festivities, recipes, and practices of collective memory predominate, highlighting a strong connection between symbolic consumption and local identity. The second axis, of an industrial and commercial nature, is exemplified by *Cerâmica de Porto Ferreira* (Porto Ferreira Ceramics), whose digital visibility is associated with brands, shops, and direct consumption practices, indicating a valuation focused more on the market and design than on the cultural attributes of the territory. The third axis, called tourist-experiential, includes *Vinho do Vale dos Vinhedos* (Valley of the Vineyards Wine) and *Queijo da Canastra* (Canastra Cheese), in which searches reflect an interest in authentic experiences, enogastronomy, hospitality, and appreciation of origin, expressing the articulation between tourism, quality, and territorial identity.

This structure demonstrates that Google Trends operates as an indicator of the digital territoriality of geographical indications (GIs), allowing the identification of modes of symbolic circulation and territorial marketing strategies. Search trends therefore reveal

different forms of cultural and economic appropriation of territories, indicating how the digital environment contributes to reconfiguring the visibility, recognition, and valuation of geographical indications in contemporary space.

The data suggest that Brazilian geographical indications exhibit varying degrees of symbolic and market consolidation. While some, such as *Canastra* and *Vale dos Vinhedos*, have achieved broad national recognition and a diversification of meanings, others, such as *Doces de Pelotas* and *Cachaça de Paraty*, still rely heavily on local events and regional promotional structures.

This study confirms that online search behavior reflects the dynamics of territorial valuation, revealing how the digital world reconfigures the symbolic space of geographical indications. Thus, visibility on Google is not just a metric of popularity but also an indicator of the territorial and cultural maturity of geographical indication.

#### 4 CONCLUSIONS

The analysis demonstrates that Brazilian geographical indications (GIs) constitute strategic instruments for territorial, cultural, and economic valorization, whose digital visibility reflects the degree of symbolic and market consolidation of each product. The use of Google Trends revealed that public interest in GIs is heterogeneous and marked by regional asymmetries, being more expressive in the regions of origin and around products strongly associated with cultural identity and tourism, such as *Canastra Cheese* and *Vale dos Vinhedos Wine*. These results confirm that digital notoriety is a relevant dimension of contemporary territorial recognition, which translates to symbolic circulation and social engagement around cultural and agri-food goods.

However, most GIs still have predominantly local notoriety, with limited international projection, highlighting challenges related to symbolic diffusion and integration into global markets. This limitation stems, in part, from structural factors—such as

unequal infrastructure, communication capacity, and institutional investments—that impact the ability to promote and build reputation. In this sense, public policies and territorial marketing strategies should prioritize coordinated actions in digital communication, consumer education, and strengthening production networks to increase visibility and ensure authenticity and sustainability in GI supply chains.

Measuring digital awareness, by integrating territorial, cultural, and communicational variables, constitutes a valuable analytical tool for understanding the maturity of geographical indications in Brazil. In addition to revealing patterns of interest and symbolic belonging, this approach allows more balanced regional development strategies to be guided, connecting traditional knowledge, technological innovation, and territorial valorization policies. Thus, GIs assert themselves not only as marks of origin and quality but also as vectors of sustainability and cultural identity, capable of articulating local roots and global horizons.

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