The effect of Geographical Indications on Economic Development

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Abstract

The understanding of a Geographical Indication (GI), under an economic point of view, is connected to a strategy that aims at adding value to products or services whose characteristics are related to the territories in which they are inserted, with the premise of strengthening territorial economies, mainly in rural areas. GIs associated to agri-food products not only add value to these products, but also aim at providing easier access to either internal and/or external markets, promoting the inclusion of rural producers or disfavored regions in terms of commercial trade routes, besides contributing to the sustainable use of biodiversity and, consequently, of local genetic resources. Therefore, this work aims at providing an overview of the main scientific works regarding Geographical Indications (GIs) focused on the development of regional economies, especially in rural areas, considering in natura products. The methodology employed consisted of carrying out a systematic literature review on Scopus, Web of Science and Science Direct databases, based on a sequence of themes (Geographical Indication, Economic Development, Brazilian products in natura). Therefore, it was necessary to select the scientific articles corresponding to the combination of keywords, while also considering those works published in the last 10 years and with a score higher than 25 points, according to the criteria adopted in this work. The results of this research demonstrate the importance of GIs for promoting local economic development, through production and local services, adding value to the agri-food market and to its capacity in generating jobs and wealth.

Keywords*: Geographical indication, local economic development, agri-food product.*

1. Introduction

Geographical indications (GIs), under an economic point of view, can be understood as a strategy aimed at adding greater value to products or services, whose characteristics are related to the territory in which they are inserted. Accordingly, GIs foster stronger territorial development, especially in rural areas, mainly those focused on the agri-food market, not only adding value to products but also promoting and providing easier access to either internal and/or external markets, contributing to the promotion and insertion of rural products or regions with less-favored markets, especially concerning the conservation of biodiversity and local genetic resources, contributing to environmental conservation [PELLIN and VIEIRA, 2015].

In the Brazilian context, GIs are established from the time certain characteristics, or certain aspects of quality or reputation can be associated to rural products, being mainly related to the geographical origin,

being under legal protection, in terms of industrial property, against the use by third-parties [BRASIL, 1996, 2000; CERDAN, 2013].

The constitutional provision under Law no. 9.279, from 14 May 1996 establishes the rights and duties regarding industrial property, with articles 176 to 182 approaching the conditions of GI use, not only in terms of the indication of origin but also regarding the denomination of origin [BRASIL, 1996]. The National Institute of Industrial Property (INPI, in Portuguese), is the national entity responsible for establishing the criteria for obtaining a GI [BRASIL, 2000], which is described in Normative Instruction no. 95, from 28 December 2018 [BRASIL, 2019] on the conditions for granting Geographical Indications.

Therefore, GIs are considered a strategy for promoting and strengthening economic development, valuing territorial resources, consequently fostering niche markets, taking into account the intrinsic features for preserving biodiversity in rural environments [PELLIN and VIEIRA, 2015].

Accordingly, as pointed out by Pimentel [2013], GIs are based on the assumption of promoting regional growth and development. Through the national use of a system of intellectual property, this growth and development is enabled by the exploration of resources, such as economic assets, through which the analyses of indicators are essential to this subject, mainly when a GI can increase the sale price of regional products or contribute to the increase of regional income, fomenting regional economic development, as described by Faria, Bessi and Milanez [2014].

It is important to point out that the search for granting GIs, aimed at obtaining results which can promote economic development, depend on various circumstances and perspectives, especially in terms of who is in charge of a certain project, such as when a group of individuals settle in a region, seeking opportunities for realizing this innovation, analyzing capacity of local players in defining technical, political and economic criteria, including the perception of the market, its trends, as well as sources of support and partnership for carrying out a given project. Thus, it is noticeable that the team in charge of these projects can distinguish between the strong and weak points of the region, as well as its threats and opportunities [BRANDÃO and SANTOS, 2016].

Therefore, this work carried out a systematic review, as it is a potential tool that enables the analysis of scientific production of certain research themes. Thus, when applying quantitative and comparative methods, a systematic review can follow historical and scientific trends of research objects, identifying novelties, innovation or gaps in scientific knowledge [SACARDOS, HAYASHI, 2013].

With this in mind, this work is aimed at identifying publications with the following themes: geographical indication, economic development, focused on providing an overview of the effect of GIs of agricultural products *in natura*.

2. Theoretical Framework

2.1 Geographical Indication (GI) and Economic Development

The conception process of a GI consists in identifying a common product or service in a given territory, similar to a civil registration process, which aims at ensuring the civil rights that have been previously established in the Constitution [MAIORKI and DALLABRIDA, 2015].

Authors such as Gollo and Castro [2007] have defined a GI as a product originating from the territory whose characteristics are linked to its geographical origin, ensuring the civil rights of this product. However, a GI can be described as the exclusive right associated to industrial property, with collective nature and use, being linked to a certain region [FERREIRA et al., 2013]. In turn, Pimentel [2013] defined it as an industrial and collective-type intellectual property, being exclusive to certain local producers. These authors argue that the main GI goals comprise the economic development of the territory, due to the connection to the product, its quality and specificity in the territory in which it is produced.

For Santos [1998, p. 16], "territories are forms, but the territory used include objects and actions, which are synonyms of human and inhabited space (…) today a territory can be formed by contiguous localities and by network localities". Regarding the reflections of a region, Santos [2006] states that concrete changes of a region arise from a geographical analysis. Nevertheless, regional reflections have always been influenced by the parameters of materialistic models of analysis, exclusively focused on an economic context, with no concern on issues of space, territory and regionality, which promote regional development from the production of products/services, mainly from small producers.

This context highlights the importance of Geographical Indications, which add value to territories, enabling local entrepreneurs to develop plans and actions that provide a competitive advantage to these territories in terms of local or external competitors [DULLIUS, 2009]. Moreover, as GIs are guided by cultural characteristics, they help preserving the local identity of citizens, promoting territorial development by fomenting the production of several products connected to the history, culture or tradition of these individuals, as well ensuring certain rights reserved to regional producers, besides promoting economic development.

2.2 Geographical Indication and Economic Development of Products in natura

Regarding economic development, it is important to point out that this development is a result of economic growth associated to better life standards and to some essential factors in the economic and social structure of the population, which promotes a more balanced distribution of the wealth produced. Therefore, these factors control and determine territorial development, being conceived as economic, cultural and political factors which are inherent to biophysical and social characteristics, under the perception that the path organized and built by social actors must be present in the coordination of strategic local actions, in order to generate economic profitability [JEAN, 2010; SANDRONI, 1994].

In the Brazilian context, the discussion regarding a more sustainable territory through rural development, more specifically, through *in natura* rural development, has been intensified in several circumstances, innovating and fostering rural activities [ANDION, 2010]. In this perspective, in a rural environment, this development includes various programs that add value to issues on sustainability, with a clear preference verified towards products *in natura*, prioritizing regional products.

For this boost, growth and development of the rural environment in certain regions, mainly those which are deteriorated and require investment of some resources to explore the potential of local producers, GIs appear as a strategy for economic development, also promoting local territorial strengthening, especially in territories considered economically vulnerable. According to Vieira and Buainain [2011], GIs can provide new experiences with existing products, local natural resources, exploring local potential and

promoting a better quality of life of producing communities, playing an important role in several sectors of the Brazilian economy.

Accordingly, GIs have been widely used in the agri-food business, mainly with products from local natural resources, aiming at protecting and adding value to these products. Furthermore, GIs enable the economic insertion of these products, according to their origin, with specific quality attributes, contributing to greater product value [ANDION, 2010].

3. Methodology

A systematic review of the scientific literature was carried out between the months of June and August 2019, using keywords correlated to the research subject (Table 1), according to the Systematic Review Flow Diagram Methodology [FERENHOF, FERNANDES, 2016]. The keywords used were "Geographical Indication", "Brazilian products *in natura"*, being searched both in English and Portuguese, with the use of the Boolean operator "and", as well as considering the synonyms presented in the Thesaurus (2019) website. Sequential searches were subsequently performed in the Web of Science, Scopus and Science Direct databases, being systematized in the search string, as shown in Table 1.

Table 1 – Systematic keywords and search string

Words in Portuguese	**Words in English**	**Synonym**	**Database**
Indicação Geográfica	Geographical Indication	Indexed	*Web of Science*, *Scopus* e *Science Direct*
Desenvolvimento Econômico	Economic Development	Indexed	
Produtos brasileiros *in natura*	Brazilian products *in natura*	Indexed	

Source: Authors (2019)

The *Web of Science* (WOS) website is considered one of the main multidisciplinary bibliographic platforms, providing access to trustworthy data, making use of citation metrics and including contents which are associated to various sources. Thus, it follows a strict assessment process, which presents information considered relevant and regarded as scientific research [BAKKALBASI et al., 2006].

As for the *Scopus* database, it is considered one of the largest abstracts and citations databases of peer-reviewed literatures, mainly due to its wide range of researches in the fields of science, technology, social sciences, medicine, arts and humanities, providing tools that are able to track and obtain significant research data [SCOPUS, 2019]. In turn, *Science Direct* gives access to approximately 2.500 scientific journals, including over 26.000 certified e-books through the Anglo Dutch editor Elsevier.

From the articles obtained as a result of the application of the combination of keywords, those which fulfilled the following inclusion and exclusion criteria were selected: scientific article, published in the past 10 years, full text, available in both languages (English and Portuguese), with a score higher than 25 points and research regarding GI and economic development, as well as works describing the opinion and methodology adopted for promoting GIs, being applied in the systematic review. The quality index was calculated taking into account the terms of interest in the title (5 points), the abstract (3 points) and the

keywords (2 points). To identify the number of publications from these databases, n= (equal number) was considered.

The exclusion criteria included documents that did not obtain a score higher than 25 points, which is a value stipulated as the score range in this work, as well as those documents that did not include their full text and those not written in the pre-determined languages (English and Portuguese).

The analysis of the titles, abstracts and keywords of the articles selected was carried out when extracting the data, considering the inclusion and exclusion criteria aforementioned, as shown in Figure 1.

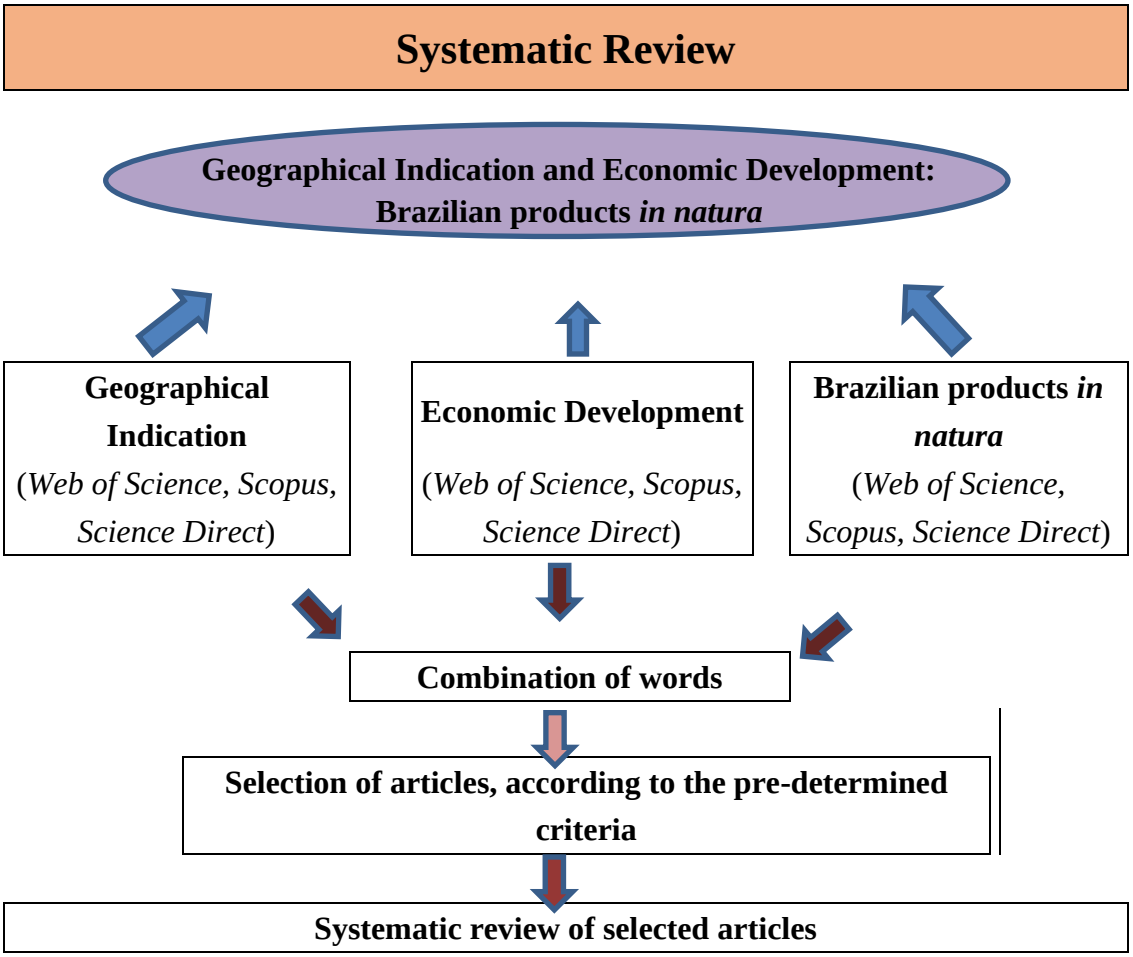

Figure 1. Research protocol

Source: Authors (2019)

4. Results and Discussion

4.1 Systematic Survey

Some keywords were selected for the systematic survey, as follows: Geographical Indication (n=1); Economic Development (n=2) and Brazilian Products *in natura* (n=3). The term economic development was more prominent in *Science Direct*, with 76.563 publications, and *Scopus*, with 35.697. In turn, the term Geographical Indication was more frequent in *Science Direct*, with 1.805 publications, while the search about Brazilian products *in natura* showed 1.075 publications. Both the combination of the keywords "Geographical Indication" and Economic Development (n=4), as well as "Geographical Indication" and Brazilian Products *in natura* (n=5) showed more frequent results in *Science Direct*, corresponding to 172

and 5 publications, respectively. The combination "Economic Development" and Brazilian products *in natura* (n=6) resulted in six articles, from which 5 were from *Science Direct* and 1 from *Scopus*, as presented in Table 2.

Finally, the combination of the three main keywords (n=7) resulted in no articles in the search, thus, no publications were published using the three terms combined. Therefore, this survey was able to demonstrate the novelty of the theme Geographical Indications in the perspective of economic development of Brazilian products *in natura*.

Table 2 – Overview of the scientific productions regarding GI and Economic Development of Brazilian Products *in natura*

N	Keywords	Web of Science	Scopus	Science Direct	Total
1	"Geographical Indication"	95	641	1.805	2.541
2	"Economic Development"	5.008	35.697	76.563	117.268
3	"Brazilian products *in natura"*	0	20	1.075	1.095
4	"Geographical Indication" and Economic Development	21	52	172	245
5	"Geographical Indication" and Brazilian products *in natura*	0	0	5	5
6	"Economic Development" and Brazilian products *in natura*	0	1	5	6
7	"Geographical Indication" and "Economic Development" and "Brazilian products *in natura"*	0	0	0	0

Source: Authors (2019), from the databases *Web of Science, Scopus and Science Direc*t.

4.2 Systematic Review

Taking into account the inexistence of publications simultaneously including the themes Geographical Indication, Economic Development and Brazilian Products *in natura*, the systematic review was carried out with the articles identified from the combination of the three keywords (Table 2). Therefore, 256 articles were extracted for analysis, with 182 from *Science Direct*, 53 from *Scopus* and 21 articles from *Web of Science* (Figure 2). Only 13% of the articles selected obtained a score higher than 25 points, according to the inclusion criteria. Following this step, an analysis of the titles and abstracts of the articles selected for systematic review was carried out, having verified that only 13 scientific articles addressed the search terms considered in this work. Most articles presented the assumptions described, such as technical standards for GIs, territorial strengthening, economic development of products *in natura*, strategies of regional production in agriculture and economic assessment. These concepts enabled the analysis of the content related to the theme, as a result of the constant use of the keywords from the articles selected.

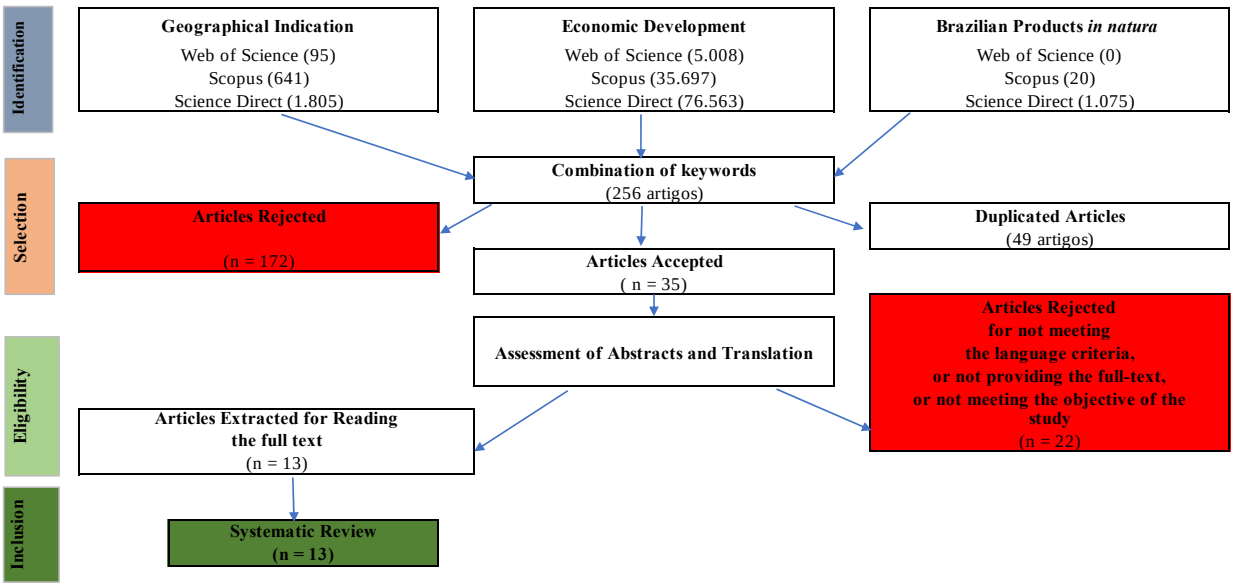

Figure 2. Geographical Indication and Economic Development of Brazilian Products *in natura*
Source: Authors (2019), from the databases *Web of Science*, *Scopus and Science Direc*t.

Following the systematic review, 13 articles were identified within the period from 2009 to 2019, with most journals selected being associated to GI and Economic Development (Table 3).

Table 3. List of Articles Analyzed in the Systematic Review regarding GI and Economic Development of Brazilian products *in natura*

n	Title	Authors	Year	Journal
1	Geographical indication as a market orientation strategy: An analysis of producers of high-quality wines in Southern Brazil	Fagundes P.M,.Padilha A.C.M, Sluszz T. et al.	2012	Database Marketing & Customer Strategy Management
2	An Overview of Geographical Indications in Brazil	Ramos B.D., Fernandes L.R.R de M.V., Souza, C.G. de	2012	Journal of Intellectual Property Rights
3	Geographical indications in Brazilian food markets: Quality conventions, institutionalization and path dependence	Niederle P.A., Gelain J.	2013	Journal of Rural Social Science
4	Trademarks, Geographical Indications and Environmental Labelling to Promote Biodiversity: The Case of Agroforestry Coffee in India	Marie-Vivien D., Garcia, C.A. Kushalappa, C. G., Vaast. P.	2014	Development Policy Review
5	Contributions of geographical indications for territorial strengthening in rural space: a case study in southern Brazil	Pellin V., Vieira A.C.P.	2015	Revista Espacios

6	Rural Territorial Development with Social Management: the Case of Geographic Indication of Paraty's Cachaça	Almeida A.C.R.A, Alimonda H.A., Meirelles Júnior J.C., et al.	2015	European Journal of Economics, Finance and Administrative Sciences
7	Protected geographical indications: Institutional roles in food systems governance and rural development	Conneely R.; Mahon M.	2015	Geoforum
8	Geographical Indication Re-signifying Artisanal Production of Curd Cheese in Northeastern Brazil	Almeida S.L., Paiva Júnior F.G., Costa C. et al.	2016	Revista de Administração Contemporânea
9	Technical norms for Geographical Indications and their reflexes for the wine sector	Bruch K.L, Vieira A.C.P, Gaspar L.C.M., Silva, da C. F. e Araújo, M. V.	2017	BIO Web of Conferences
10	Geographical Indications and "Origin" Products in Brazil – The Interplay of Institutions and Networks	Wilkinson J.; Cerdan C.; Dorigon C.	2017	World Development
11	From Geographical Indications to Rural Development: A Review of the Economic Effects of European Union Policy	Cei, L.; Defrancesco, E.; Stefani, G.	2018	Sustainability
12	Geographical indications and value capture in the Indonesia coffee sector	Neilson, J., Wright, J., Aklimawati, L.	2018	Journal of Rural Studies
13	Geographical Indication as a Tool for Regional Development: An Opportunity for Small Farmers to Excel in the Market	Malacarne A, Nunes-Silva L, De-Bort R	2019	International Journal of Social Science and Humanity

Source: Authors (2019), from the databases Web of Science, Scopus and Science Direct.

According to Fagundes, Padilha, Sluszz et al. (2012), the issue raised by the development of a GI in the region studied in their work – Vale do Vinhedo, Brazil – lies on meeting the current and future demands, considering not only national but also foreign markets, taking into account that Brazilian organizations need to be focused on the growth of this market. The objective of the study consisted in assessing the economic development of vineyards specialized in high-quality wines from Vale do Vinhedo, in the Brazilian State of Rio Grande do Sul, from which the GI is characterized as a focus strategy to this market, enabling to improve economic development, leading to greater commercial value of the rural property, as

well as the increase of the rural production area, improvement of technological standards, higher flow of tourists and recognition of the designation of origin.

For Ramos, Fernandes and Souza (2012), GI is a certification which leads to greater competitive advantage and adds more value to the product and region of origin. In the Brazilian scenario, with the country being a great exporting country of agricultural products, there is a significant potential in obtaining this protection, considering cultural diversity, ecosystems and the distinctive local gastronomy. However, GIs are not widely known and explored in the country, with the development of new studies being highly important for present actions to be implemented, taking into account the great potential of the country and aiming at protecting GIs.

Niederle and Gelain (2013) discussed the institutionalization of the GI system in Brazil, emphasizing the evaluative disputes underway in hybrid forums, where several actors seek to build compromises concerning production rules and standards, linking economic and market aspects, analyzing the different understandings of GIs as they emerge from the discourses and practices of actors involved in food qualification processes. The results demonstrated that GI projects have been developed without a stabilized institutional frame – which would enable to set targets for the medium and long term, thus leading to the reproduction of a variety of subsystems implemented within different territorial and sectoral contexts. In turn, this has created several obstacles to market development, taking into account that the publication of GIs was not integrated in more effective studies nor integrated as part of a network with other GIs.

In turn, the work developed by Marie-Vivien, Garcia, Kushalappa and Vaast (2014) demonstrated that the district of Kodagu, in the Western Ghats of India, is responsible for the production of 2% of the coffee in the world, with the expansion and intensification developed in the region leading to the reduction of the forest cover by more than 30% in 20 years. Therefore, the authors identified the need of implementing innovative strategies capable of linking economic development and biodiversity conservation. Thus, three important strategies add value to coffee from Kodagu and prevent further biodiversity erosion: registration of trademarks; geographical indications; and environmental certification, via eco-labels. Accordingly, GIs are described as a path for promoting economic development, especially for adding value and protection to the coffee produced in the region.

In the study carried out by Pellin and Vieira (2015), by identifying strengths and economic vocations of the experience from Goethe Grape Valleys, in the region of Urussanga – in the Brazilian state of Santa Catarina, it was possible to identify that GIs have promoted rural territorial development, also increasing the competitivity of the region. The study showed that GIs could be catalysts for territorial development in rural locations, mainly in economic terms, with the increase of sales and access to new markets, besides having other advantages related to the development of complementary activities, such as wine tourism and local identity preservation. In economic regards, the quantitative data of the study demonstrated that after identifying the GI for the product, several important economic advantages were observed in the region, especially two years after granting registration, when vineyards observed an increase of 20% in the sale of Goethe wines and of almost 30% in the sale of sparkling wines. This economic increase, following the recognition of GI of the Goethe wine, also provided access to new markets, where producers could sell their products in important regional networks, preserving biodiversity, local genetic resources and contributing to the environment.

The article with the highest score was published by Almeida, Alimonda, Meirelles Júnior et al. (2015), aimed at evidencing how geographic indications may contribute to the territorial social management movement, from a study on the label of cachaça produced in Paraty, in the south of the Brazilian State of Rio de Janeiro, addressing GIs and their implications on local development, focusing on the development notion and its transformations, as well as on concepts of social management. The article states that a GI can generate a positive effect in providing development and improvement in life quality, though it may also cause negative impacts, as the exclusion in logic is only focused in the market perspective.

The article published by Conneely and Mahon (2015) examines the importance of national-level institutional arrangements for promoting the EU's Protected Geographic Indication scheme (PGI). Taking the example of Ireland, for which PGI designations remain comparatively low, the authors explore whether the approach for providing institutional supports to the PGI scheme is influenced by top-down technocratic governance structures that pertain to food safety and quality certification. The findings point to the benefits to be gained from a more layered governance structure for PGI, which is to incentivize the formation of producer groups and prioritize mentoring and support for PGI concept development, as a clearer reflection of bottom-up rural sustainability policy.

Almeida S.L., Paiva Júnior F.G., Costa C. et al. (2016) showed that fierce market competition and growing consumer demand for quality have spurred organizations to seek certification as a way of differentiating their products and services from those of competitors. This study aimed to understand how the process of GI certification has conferred a new meaning to the artisanal production of curd cheese, as well as how GI adds value to the product, making it competitive and influencing the economic development of the region. The results revealed that GI certification-driven innovations have helped producers to re-signify their artisanal production, while providing a clear understanding of the material dimension of the product, with a commitment for providing safety and high-quality products.

In the perspective of BRUCH et al. (2017), a technical norm for the GI management system is necessary, which has not yet been developed. This is necessary as the actions drawn are regionalized, although these could be part of a publication network that would enable greater exchange of knowledge, especially for promoting local economic development through the sales of products in other locations. The research developed examined the technical standards from the Brazilian Association of Technical Norms (ABNT), with the objective of examining if these can help in the structuring, recognition and sustainable development of GIs in Brazil. According to the authors, the creation of these standards is of great importance, as it would promote sustainability in several other sectors. Nevertheless, even without this GI management system, stark impacts can be observed as a result of existing technical norms in the wine-growing GI, which generated effective financial gains for local producers.

In the article published by Wilkinson, Cerdan and Dorigon (2017), institutional and organizational factors which have influenced the development of policies and mobilizations around agricultural products in Brazil were analyzed, particularly focusing on the analysis of the role of networks. The authors identified the different actors involved in the defense and promotion of origin products situated within the broader politico-institutional context, namely artisan cheese, identifying two types of networks focused on the promotion of origin products. Finally, new and broader trends in Brazilian agriculture were related to the development of GI for artisan cheese.

In turn, Cei, Defrancesco and Stefani (2018) discussed about one of the main functions of geographical indications (GI), which is to provide information and quality of products/services to consumers, generating benefits to producers and stimulating rural development processes. The research was aimed at understanding if the theorized effects of GIs on local economic development are supported by empirical evidence. The review carried out outlined that the demand for quality products is an economic opportunity for producers and, despite the difficulties found in the production process due to the location and sale of the products, the rural producer must maintain a skilled workforce to offer products with greater quality. Therefore, GIs are capable of protecting and generating added value, especially at the consumer and retailer levels, while the effects on the economic performance of producers are more heterogeneous and depend on specific local conditions. Nevertheless, the results obtained draw conclusions regarding the need for GI policies that attest the origin of products in more disadvantaged areas, with policies to advertise the region and its products/services, promoting the economic development of producers.

In the article published by Neilson, Wright and Aklimawati (2018), the discussion includes the concepts of value capture and strategic coupling from the global production networks, being used to assess the impacts of the Indonesian coffee sector with the development of formally-registered GIs. The authors also verified that GIs can deliver intangible benefits for some stakeholders in terms of promoting a sense of regional pride or cultural identity, contributing to the regional economic development.

Finally, the study carried out by Malacarne, Nunes-Silva and De-Bort (2019) highlights that agribusiness engages in a form of production in which only the big producer benefits, while family farming suffers from a scarcity of opportunities. The authors also analyzed the food production network in Brazil, within each of its five geographic regions, described in the documents consulted in the databases from the Brazilian National Institute of Intellectual Property (INPI, in Portuguese). The results show that the data on food production in the five large Brazilian regions differs significantly – mainly in the case of the States of Rio Grande do Sul and Minas Gerais, which are leaders in the use of GIs, with 19% and 17%, respectively, besides interfering in the agrobusiness model, where only large landowners generate wealth, being considered harmful to small producers. The authors concluded that one of the solutions for these small producers in improving their benefits and generation of wealth consists in innovation, thereby giving their products added value, with the use of GIs helping to support these small producers in their efforts to thrive.

5. Final Remarks

The systematic review identified the importance of GIs in adding value to products and services, mainly by enabling opening more markets from the standardization of products, thus promoting commercial leverage and rural development, consequently associated to a combination of improvements of local economic and social structures.

The guidelines adopted verified the existence of some locations around the world which use GIs as a way of promoting regional development, under an economic perspective, such as in the case of Kodagu, in India, and Ireland, taking into account the direct relation with the local territorial agglomeration, with potentialities for developing certain products/services, being an enabler of development in the region. The database from *Science Direct* presented the greatest number of publications in journals involving

geographical indications and economic development as research focus. It is worth pointing out that the term geographical indication is cited in all articles published within the scope of the systematic review, showing the concern of scientists regarding the need of valuing products/services and preserving tradition as a way of ensuring the quality to consumers, leading to greater trust. The publications analyzed were highly relevant for identifying the main actors, objectives and methodologies used for scientific production, especially concerning Geographical Indications and Economic Development of Brazilian products *in natura*. Moreover, a lack of research in this field was noted.

The development of this methodology contributed to the understanding of the strategy adopted in terms of how a GI can influence the economic development of a certain territory, mainly in disfavored regions, promoting the sustainability of production systems of local agri-food products, which can represent generation of wealth, work and jobs to local communities, besides mitigating rural exodus and helping in valuing natural resources and traditional cultures.

Accordingly, it can be concluded that the effects of Geographical Indicators in the economic development of regions have a considerable impact on driving investments in the production area, adding value to properties, boosting tourism, improving technological standards and generating job offers. Therefore, despite the limited number of GIs registered in Brazil, as a result of the increasing bureaucratic demand for legal protection, GIs are still considered a great potential to increase the competitivity of producers as well as to economic development. Moreover, GIs can promote a better quality of life between the producing populations, playing an important role in several sectors of the Brazilian economy.

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7. References

[1] Almeida, A.C.R.A de; Alimonda, H.A.; Meirelles Júnior, J.C. et al. Rural Territorial Development with Social Management: The Case of Geographic Indication of Paraty's Cachaça. European Journal of Economics, Finance and Administrative Sciences. ISSN 1450-2275 Issue 81 October, 2015.

[2] Almeida, G. O.; Oliveira, L.B.de; Russo, S.L. Noções de bibliometria: um passo a passo. In: RUSSO, Suzana Leitão et al. (orgs.). Propriedade intelectual, tecnologias e empreendedorismo. Aracaju: API, 2017. pp. 87-95.

[3] Almeida, S.L.; Paiva Júnior, F.G.; Costa, C. et. al. Geographical Indication Re-signifying Artisanal Production of Curd Cheese in Northeastern Brazil. Rev. Adm. Contemp. [online]. Rio de Janeiro: 2016, v. 20, n. 6, art. 4, pp. 715-732.

[4] Andion, C. A Gestão no Campo da Economia Solidária: Particularidades e Desafios. RAC, v. 9, n. 1, Jan./Mar.: 79-101. 79ª, 2010.

[5] Bakkalbasi, N.; Bauer, K.; Glover, J. et al. Three options for citation tracking: Google Scholar, Scopus and Web of Science. Biomedical Digital Libraries, v. 3, n.7, 2006. pp.1-8.

[6] Brandão, B.O.; Santos, J.A.B. A valorização dos produtos tradicionais através da indicação geográfica: o potencial do aratu de Santa Luzia do Itanhy. Rev Bras Desenvolvimento Regional, Blumenau, 4 (2), p. 149-175, 2016.

[7] Brasil. Lei nº 9.279/96, dispõe sobre a Lei de Propriedade Industrial. Brasília: Senado Federal, 1996.

[8] Brasil. Instituto Nacional de Propriedade Industrial. Portaria nº 95, de 28 de dezembro de 2018, dispõe sobre estabelecimento de condições voltadas para a obtenção de registro de uma indicação geográfica. Disponível em: http://www.inpi.gov.br/menu-servicos/indicacao-geografica/legislacao-indicacao-geografica-1. Acesso em: 07 ago. 2019.

[9] Bruch, K.L.; Vieira, A.C.P.; Gaspar, L.C.M.; Araújo, M. V.. Technical norms for Geographical Indications and their reflexes for the wine sector. BIO Web Conferences. Vol.9, 2017 40th World Congress of Vine and Wine.

[10] Campos, L.S.; Chacur, D.F. Indicação Geográfica como Instrumento de Desenvolvimento Econômico Sustentável. Rio de Janeiro: Universidade Candido Mendes, 2015.

[11] Cei, L.; Defrancesco , E.; Stefani, G. From Geographical Indications to Rural Development: A Review of the Economic Effects of European Union Policy," Sustainability, MDPI, Open Access Journal, vol. 10(10), 2018, pp. 1-21.

[12] Cerdan, C. Produtos localizados, desenvolvimento territorial e patrimônio cultural: indicações geográficas e estratégias de desenvolvimento territorial. In. Indicações geográficas qualidade e origem nos mercados alimentares. NIERDELE, P. A. (Org.). Porto Alegre: UFRGS. 2013.

[13] Cerdan, C.M.T.; Bruch, K.L.; Silva, A.L. et al. Indicação Geográfica de produtos Agropecuários: importância histórica e atual. In. Pimentel, L.O. (Org.). Curso de Propriedade Intelectual e inovação no agronegócio - modulo II Indicação Geográfica/ministério da agricultura, pecuária e abastecimento. Brasília: MAPA, 2013.

[14] Conneely R., Mahon M.. Protected geographical indications: institutional roles in food systems governance and rural development", Geoforum, n.60, 2015, pp.14-21.

[15] Dullius, P. R. Indicações geográficas e desenvolvimento territorial: as experiências do Rio Grande do Sul. Dissertação de mestrado apresentada ao Programa de Pós-Graduação em Extensão Rural da Universidade de Santa Maria. Santa Maria –RS. 2009.

[16] Elsevier. Scopus. Dados da plataforma. Disponível em: https://www.elsevier.com/pt-br/solutions/scopus. Acesso em: 13 jun. 2019.

[17] Fagundes, P. de M. et al. Geographical indication as a market orientation strategy: an analysis of producers of highquality wines in Southern Brazil. Database Marketing & Customer Strategy Management, Houndmills, v. 19, n. 3, p. 163-178, 2012.

[18] Faria, L.I.L.; Bessi, N.C.; Milanez, D.H. Indicadores tecnológicos: estratégia de busca de documentos de patentes relacionados à instrumentação aplicada ao agronegócio. Cadernos de Ciência & Tecnologia, Brasília, v. 31, n. 1, jan./abr., 2014.

[19] Ferenhof, H.A.; Fernandes, R.F. Desmistificando a revisão de literatura como base para redação científica: método SSF. Revista ACB: Biblioteconomia em Santa Catarina, Florianópolis, SC: v. 21, n. 3, ago./nov., 2016.

[20] Ferreira, A.M. et al. Indicação Geográfica no Brasil: aspectos legais. In: VR Dallabrida. Território, identidade territorial e desenvolvimento regional: reflexões sobre Indicação Geográfica e novas possibilidades de desenvolvimento com base em ativos com especificidade territorial. São Paulo: LiberArs, 2013. p. 127-134.

[21] Gollo, S.S.; Castro, A.W.V. Indicações geográficas: o processo de obtenção da indicação de procedência Vale dos Vinhedos Serra gaúcha/RS/Brasil. Congresso da SOBER, 45., 2007, Londrina. Anais... Londrina: SOBER, 2007.

[22] Jean, B. Do desenvolvimento regional ao desenvolvimento territorial sustentável: rumo a um desenvolvimento territorial solidário para um bom desenvolvimento dos territórios rurais. In: Vieira, P.F. et al. (Org.). Desenvolvimento territorial sustentável no Brasil. Florianópolis: Aped; Secco, 2010.

[23] Maiorki, G.J.; Dallabrida, V.R. A indicação geográfica de produtos: um estudo sobre sua contribuição econômica no desenvolvimento territorial. Interações, Campo Grande, v. 16, n. 1, p. 13-25, jan./jun. 2015.

[24] Malacarne, A.; Nunes-Silva, L.; De-Bortoli, R. Geographical Indication as a Tool for Regional Development: An Opportunity for Small Farmers to Excel in the Market. International Journal of Social Science and Humanity, Vol. 9, No. 2, May 2019.

[25] Marie-Vivien D., Garcia, C.A. Kushalappa, C. G., Vaast. P. Trademarks, Geographical Indications and Environmental Labelling to Promote Biodiversity: The Case of Agroforestry Coffee in India. Development Policy Review, 32, nº 4 (2014): 379-398.

[26] Niederle, P.; Gelain, J. Geographical indications in Brazilian food markets: Quality conventions, institutionalization and path dependence. Journal of Rural Social Sciences, 28(1), 2013, pp. 26–53.

[27] Neilson, J.; Wright, J.; Aklimawati, L. Geographical indications and value capture in the Indonesia coffee sector. Journal of Rural Studies, 59, 2018, pp. 35-48.

[28] Pellin, V.; Vieira, A.C.P. Contributions of geographical indications for territorial strengthening in rural space: a case study in southern Brazil. Espacios. Vol. 36 (nº 08), 2015.

[29] Pimentel, L.O. Os desafios dos aspectos legais na prática de estruturação das Indicações Geográficas. São Paulo: LiberArs, 2013. p. 135-143.

[30] Ramos, B.D.; Fernandes, L.R.R.M.V.; Souza, C.G. de. An Overview of Geographical Indications in Brazil. Journal of Intellectual Property Rights, Vol 17, March 2012, pp 133-140.

[31] Sacardo, M.S.; Hayashi, M.C.P.I. Bibliometria e epistemologia: balanços avançados da produção científica em educação interface física com educação. In: Hayashi, M.C.P.I. (Org.). Bibliometria e cientometria: estudos temáticos. São Carlos: Pedro e João, 2013.

[32] Sandroni, P. Dicionário de economia. São Paulo: Atlas, 1994

[33] Santos, A.S.; Valente, L.R.R.M.; Medeiros, M.F.T. Geographical Indications (GIS) as a tool to reach the sociocultural development: a prospection of the brazilian territory. Revista GEINTEC– ISSN: 2237-0722. Aracaju/SE. Vol. 9, n. 1, p. 4769-4785, jan/fev/mar – 2019 4769. D.O.I.: 10.7198/geintec.v9i1. 1167.

[34] Santos, M.. Território. Globalização e Fragmentação. 4. Ed. São Paulo: Hucitec, 1998.

[35] _____ O Brasil: território e sociedade no início do século XXI. 9. ed. São Paulo: Cortez, 2006.

[36] ScienceDirect. Database. Disponível em: https://www.sciencedirect.com/. Acesso em: 09 jun. 2019.

[37] Thesaures. Database. Disponível em: https://www.thesaurus.com/. Acesso em: 12 jun. 2019.

[38] Varella, M.D.; Barros, A.F.G. Indicações Geográficas e Arranjos Produtivos Locais. In: ____. Propriedade Intelectual e Desenvolvimento. São Paulo: Lex, 2015.

[39] Vieira, A.C.P.; Buainain, A.M.; Vieira Júnior, P.A. Proteção da biotecnologia na agricultura. Revista de direito privado, São Paulo, v. 30, p. 49-73, 2011.

[40] Web of Science. Database. Disponível em: https://clarivate.com/webofsciencegroup/solutions/web-of-science/. Acesso em: em 10 jun. 2019.

[41] Wilkinson, J.; Cerdan, C.; Dorigon, C. Geographical Indications and "Origin" Products in Brazil – The Interplay of Institutions and Networks. World Development Vol. 98, pp. 82–92, 2017.