

Comparing registration efforts for Protected Geographical Indications in Austria, Colombia and Italy

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Abstract: Geographical Indications (GIs), traditionally found in southern European Union (EU) countries, allow producers to defend their food products quality reputation while highlighting their geographical origin and value to consumers. The EU protected GIs normally require collective action for the registration process. But how much efforts are involved with these collective registration processes (e.g. reaching an agreement between local producers on the product specifications, demonstrate the link between product characteristics and its quality, discuss oppositions by other interested actors) and how do group and organizational characteristics impact on them? We made cross-country comparisons of selected Protected Geographical Indications (PGIs) such as Styrian Pumpkinseed Oil, Café de Colombia and Tuscan Olive Oil to assess the institutional framework and its effects on transaction efforts, benefits and risks before and after PGI registration. In our comparative case studies we used transaction costs theory as conceptual framework; data was collected through semi-structured interviews and document analysis. Preliminary results show that the selected GI cases have diverse contexts, approaches and legal frameworks (included implementing administrative procedures) with varying transaction efforts. While in the cases of the EU GIs farmers had to apply as organizations and reach a consensus between different stakeholders due to the democratic nature of the process (e.g. they had to join forces with local administrations to define the GI strategy due to a strong interest in identity products), in the Colombian case the registration process was managed by a robust coffee federation on the national level that acts on behalf of coffee growers since 1927. This implies that the ex-ante transaction efforts in the EU cases involved substantial time to consolidate the conflicting interests of large and more heterogeneous groups of supply chain actors. In contrast, the Federación Nacional de Cafeteros de Colombia absorbed the transaction efforts of farmers by taking the leading role and pushing the PGI registration process with less conflicts and discussions with Colombian actors inside and outside the Federación. We conclude that institutional frameworks, group size and heterogeneity, ex-ante organizational robustness as well as motivations for GI registration have an effect on transaction efforts. Furthermore, group processes can also result in indirect transaction benefits such as on social and human capital.

Keywords: Protected Geographical Indications, registration process, transaction efforts, comparative case study analysis

GIs and the relevance of institutions for collective action

Geographical Indications (GIs), traditionally found in southern European Union (EU) countries, allow producers to defend their food products quality reputation while highlighting their geographical origin and value to consumers. The registered GIs encourage diverse agricultural production, protect product names from misuse and imitation and help consumers by giving them information concerning the specific character of the products (European Commission, 2013). The EU protected GIs require collective action of various supply chain actors for the registration process (Reviron & Chappuis, 2011). Before registration, a group of producers must define the product according to precise specifications. If producers are located in the EU, they should send the application to the national authority, while non-EU producers, after the name is protected in the origin country, can fill in an online application or send it to the Commission directly or via the national authority (European Commission, 2013). Neilson (2007) identifies that a supporting institutional environment is necessary for farmers' access to value added markets. This is particularly true for the GI registration process, where institutions allow for and shape the interaction of supply chain actors. There is a lack of research on the ideal institutional frameworks in which farmers may access to and benefit from the GI market (Teuber, 2010) and on the institutional mechanisms allocating costs and benefits of GI protection between the different actors of the supply chain (Bowen & Zapata, 2009). Due to the collective nature of GI-registration processes, farmers and/or other supply chain actors should meet, negotiate, find agreements and make joint decisions. All these activities result in considerable transaction efforts on the meso-level of producer organizations. According to Hanna (1995) we distinguish an ex-ante (i.e. before registration) phase and an ex-post phase after registration. Whereas top-down processes mostly result in low ex-ante costs and high ex-post costs, participatory processes usually have high ex-ante and low ex-post costs (Hanna, 1995).

Randall (1981) argues that transaction efforts are spent to a transaction service. Thus, time efforts for obtaining information, for negotiations and other forms of interaction can result in transaction benefits that go beyond the mere GI protection, such as social or human capital development (Penker & Klemen, 2010). On the other hand, the governance of participatory group processes also bear risks (Enengel et. al. 2011), such as missing information, the establishment of new entry barriers or unsolvable conflicts (Muradian & Pelulessy, 2005). The guiding assumption of this paper is that different institutional frameworks result in different patterns of transaction efforts, risks and benefits and that some processes are more cost-effective than others (Penker & Klemen, 2010). For an analysis of the institutional environment's effect on transaction benefits, risks and costs associated with GI registration processes, we opted for a cross-country and interdisciplinary approach.

The paper starts from a theoretical background on transaction costs and institutional analysis (par. 2) and then goes more in depth into the case study analysis, starting from the methodology used (par.3) in order to analyze the transaction efforts, benefits and risks of registered PGIs in Austria, Colombia and Italy (par.4). Some conclusions on the preliminary results are drawn (par.5 and 6).

Background for empirical transaction efforts and institutional analysis

The empirical study will be guided by empirical transaction cost analysis (e.g. Enengel et al., 2011; Falconer & Whitby, 1999) and the institutional analysis guided by Ostrom's Institutional Analysis and Development (IAD) framework, in particular some selected action arena variables (Ostrom, 2007b).

Transaction efforts, risks and benefits

Transaction costs include all the resources used to create and maintain property rights (McCann et al., 2005). Work time lost in meetings, time required to acquire information and communicate with other actors, and direct monetary expenditures for information, travel and communication are the main elements (Allen, 1991; Hanna, 1995). We have analyzed the activities of the various collective entities involved in the process of GI registration before and after registration, without necessarily giving them a monetary valuation. This is why we refer to them with the term “transaction efforts”, rather than “transaction costs”. Production costs or compliance costs for adopting production processes to the common standards agreed upon by individual firms are not taken into account.

Transaction risks refer to challenges of group processes and collective decision making, such as conflicts or dominant personalities (Enengel et al., 2011) but also to the extent to which leading actors exercise control over information and production activities and therefore can shape the functional division of labor along the chain, set entry barrier and distribution of profits (Muradian & Pelupessy, 2005).

Regarding benefits of PDO and PGI, there are a myriad of studies, mostly case study research (Belletti & Marescotti, 2011a). Researchers and rural development agents emphasize on the indirect benefits resulting from an intensified interaction of producers, processors and traders during the registration process (Penker & Klemen, 2010). In addition, producers may become more aware of consumer demand and by learning from each other gain new knowledge of quality systems, commercialization channels and marketing strategies (Muradian & Pelupessy, 2005). More interaction during the registration process could result in improved horizontal integration, in tightening of social networks or better quality standards that are context-adequate and are broadly accepted (Penker & Klemen, 2010). Awareness for the reputation and special characteristics of the product and the production region demanded by consumers might also improve self-confidence and regional identity regional development and pride of being native of the region they come from (Belletti & Marescotti, 2011b). Consequently, we also looked at the direct and indirect benefits of the registration process.

The institutional analysis and development framework

As producer group manage the common resource of the reputation of its regional product, we opted for the long-standing Institutional Analysis and Development framework (Ostrom et al., 1994) designed for the institutional analysis of common pool resources. The framework's core is the conceptual unit called the ‘action arena’ (Ostrom et al., 1994; Ostrom, 2007b) or ‘action situation’ (Ostrom, 2007a). It is defined as the social place where actors interact, make decisions, solve problems or fight (Ostrom, 2007a). The character of the action situation shapes activities, interactions and exchanges among individuals. The framework furthermore identifies a set of variables that characterize and influence action situations (such as the exogenous legal framework, the biophysical characteristics of production and processing, group size or group heterogeneity).

Our analysis starts describing the legal and organizational framework, gives a brief insight into the bio-physical characteristics of the products (e.g. pumpkin oil, coffee, olive oil), the attributes and characterization of the organizations and the actors involved in the process (number, heterogeneity, level of trust) and the relevant rules-in-use (Hess & Ostrom, 2005). The core of the analysis focuses on the action situation, i.e. the patterns of interaction of the supply chain actors and the resulting effects on transactions efforts, benefits and risks.

Comparative case study approach with combined methods

We decided for a comparative case study of already registered GIs in EU based on semi-structured interviews and on document analysis, and thus on a recall procedure which might reduce the quality of the responses and only allow for a limited level of detail (Mettepenningen & Van Huylenbroeck, 2009). The alternative of selecting running registration processes and motivating producers to document time and monetary efforts over the whole processes was excluded due to the time effort and the large commitment needed by the producers filling in detailed forms over a long period.

Though developing countries are generally considered disadvantaged due to weak institutional structures (Dixit, 2004), we present an exceptional case in which coffee farmers have created a strong institutional structure since 1927. Thus, we started our selection with Café de Colombia PGI, the first third country product registered under EU law (European Commission, 2013). Then we looked for two comparable cases in Austria and Italy (Table 1). Selection criteria included: 1) Successful PGI registration to get insight into actual costs, benefits and risks. 2) Supra-regional scope of PGI (ideally an internationally marketed product that is also renowned outside the production area). 3) Access to information and interview partners.

As we decided to include already registered GIs, we were able to choose among more than 1.204 PGIs and PDOs registered in the European Union (European Commission, 2013).

Tabelle 1: PGI cases included

Main characteristics	Steirisches Kürbiskernöl (Pumpkinseed oil, Austria)	Café de Colombia (Coffee, Colombia)	Olio di oliva Toscano (Olive oil, Italy)
In charge of PGI management	Gemeinschaft Steirisches Kürbiskernöl g.g.A.	Federación Nacional de Cafeteros	Consorzio per la tutela dell'olio extravergine do oliva Toscano IGP
PGI application	July 1995	June 2005	June 1997
PGI registration	July 1996	September 2007	March 1998
Geographical delimitation	10 districts in Styria, 3 districts in Burgenland, 6 districts in Lower Austria	20 Colombian coffee states in certain altitudes and municipalities	Almost the entire Tuscany region
Type of product	Pumpkinseed Oil	Green and processed coffee	Extra virgin olive-oil

The interviews and identification of relevant documents took place from July through September 2012 in Colombia, from October 2013 through February 2014 in Austria and Italy respectively. Data collection was followed by qualitative and quantitative text analysis (Patton, 2002). Inter- and cross-case triangulation as well as reflective loops (Yin, 2009), i.e. discussion of intermediary and final results with local stakeholders and international experts, should help to increase the validity of the analysis.

Empirical results on the institutional environment and patterns of transaction efforts, risks and benefits for Café de Colombia

This paper presents the results of the Café de Colombia PGI, as data of the other cases are still under collection and elaboration.

The PGI processes and their institutional environment

Results from interviews revealed that the prompt registration process of the Café de Colombia PGI in the EU, from 2005 to 2007, was possible due to the long coffee tradition and the well-established collective arrangements and institutional framework of the Federación Nacional de Cafeteros de Colombia. The federated coffee system involves coffee growers, the Federación, Coffee Grower Committees (gathering of the extension staff and regional and local representatives of federated coffee growers), coffee purchasing points usually organized under coffee cooperatives, quality control and logistics (Almacafé), inspection offices at harbors (Oficinas de Inspección/Almacafé), product certification offices (Almacafé, Cafecert) and a research entity (Cenicafé). The design of the rules governing the use of the PGI formally started in 2005 and was based on the quality standards developed over decades in the past for quality export coffees.

Transaction efforts of the PGI registration and implementation

For all cases we identified three main work packages before registration: 1) Conception and consensus on the GI system; 2) Product specification and scientific analysis; and 3) Registration of the PGI. For the Colombian case we observed that although the efforts for the first work package (e.g. obtaining consensus between approximately 90 coffee representatives of about 500,000 coffee growers and other stakeholders) were relatively high, they may be lower in comparison to the European cases. The 90 elected coffee grower representatives acted on behalf of the coffee growers affiliated to the Federación Nacional de Cafeteros and formally endorsed the application process. The decision was taken during the annual meeting at the Congreso Nacional de Cafeteros in December 2004. Regarding the second work package, Colombian interviewees stated that (scientific) efforts were high for the second work package in terms of scientific analysis when linking the established quality to the geographical origin. The actors involved were about 13,000 farmers (for collecting coffee samples) and employees of the federated system (Federación, Cenicafé, Coffee Grower Committees) as well as external personnel. The registration process also involved the use of Near-Infrared Spectroscopy (NIRS) technology, which allows characterizing the bean's spectral print –analogue to a human finger print – and became a useful scientific method to understand the beans components related to their origin and therefore detect coffee origin infringement. The NIRS technology has now been deployed in Colombia's sea ports as an additional origin control device. The overall registration process was relatively fast and lasted a bit more than two years. After the registration, the Federación started contacting brand owners and roasters to contract them as PGI users. This process involves two major activities that are taking considerable time: 1) Contacting internationally PGI -would be users that voluntarily adopt the already established rules of how to use the PGI. Coffee growers are not vertically integrated and basically sell green coffee, thus roasters or brand owners are required to make the PGI effective. Since the Café de Colombia PGI was recognized under EU law to December 2013, a total of 122 brands belonging to 55 roasters have been authorized as users. 2) Training of coffee growers to translate the abstract concept of GIs into something meaningful for them.

Transaction risks of the PGI registration and implementation

The Café de Colombia PGI was the first non-European country PGI registered in the EU; thus according to the Federación's staff some of the main challenges faced were the unexplored European and national legal situation regarding GIs and the lack of experience on the international GI by involved organizations. After registration some of the main risks/challenges involve: 1) Convincing internationally acting processors to implement the PGI and to adopt already established rules of how to use the PGI. Industrial processors (roasters, soluble coffee processors for PGI and additionally green coffee buyers for the Denomination of Origin obtained in Colombia) were not involved at the beginning of the process. If they are not willing to communicate the geographical origin to the consumers (e.g., by putting the label on not-blended coffee coming from Colombia), it will be difficult to tap the commercial potential of the PGI registration. 2) Avoiding high expectations by coffee growers regarding additional price premia due to the registered PGI. 3) Fac-

ing unfair competition (bad faith) and free-riding. Free-riding is still an issue, although its detection and combat is now easier with PGI registration and origin tracking possibility, for instance by using Near-Infrared Spectroscopy.

Transaction benefits of the PGI registration and implementation

Interviews revealed that the main transaction benefits before registration involved: 1) Better knowledge and experience acquired by actors involved in the registration process. Most of all, the Federación, the coffee research center (Cenicafé) and Almacafé (quality control) developed and learned new scientific tools and legal aspects regarding the GIs. 2) The product and its regional quality, thanks to the link between quality, chemical and origin analysis performed was better profiled which in turn improved the origin traceability to identify Café de Colombia and differentiate Colombian regional coffees. Thus, the PGI process became an opportunity to consolidate and improve the quality definitions previously established for Colombian coffee and its regional origins. Before the PGI process Federación's cuppers were able to sensory differentiate Colombian coffee from other origins as well as regional coffees within Colombia.

We have asked for expected benefits hoped to result from the registered PGI in the long run: 1) Expected price premia to be transferred to coffee growers in the long term, by narrowing the supply from specific and recognized origins and protecting it from blending. The price premia is hoped to increase as a result of this segmentation strategy which in turn, through the purchase guarantee policy applied by the Federación, can mean higher prices for growers of top-quality coffee at purchasing points. 2) Improved long-term relations and communication between coffee growers and roasters and brand owners. The GI is also hoped to empower the growers' role among the value chain members. It will take more time to see whether price premium and improved long term relations will actually result from the PGI registration.

Discussion

By delegating the registration efforts to the Federación, the approximately 500,000 coffee growers could minimize efforts and risks of the PGI registration such as long term group processes and high bureaucratic hurdles (Ilbery & Kneafsey, 2000; Reviron & Chappuis, 2011). The action arena shows a robust, nested multi-level organization with a history dating back to the year 1927 that involves collective arrangements with coffee cooperatives in charge of coffee collection, coffee quality control (Almacafé/Cafecert), research entity (Cenicafé) and Coffee Growers Committees in charge of the extension services. Thus, there were not really new efforts regarding the production, logistics and monitoring (e.g. quality control) activities as these have been well-organized and constantly improved since the creation of the Federación. The Colombian case shows that efforts can be shifted to a robust pre-existing organization. Penker and Klemen (2010) show similar shifts to a private consultant engaged in GI registration processes. In France, the national authority (Institut national de l'origine et de la qualité, INAO) seems quite helpful in minimizing transaction efforts for producers, i.e. producers are supported by transforming private transaction costs in public ones (Profeta et al., 2010).

The Colombian case confirms that efforts are not only needed for the creation, but also for keeping the (GI) property (McCann et al., 2005). Despite the limited experience with GIs (e.g. on how to access legal services, scientific knowledge or financial resources), the Federación was able to demonstrate the link between the product and the geographical origin according to Colombian national and EU legal requirements within a short time period. It will take an even longer road, to actually establishing the property right for realizing the envisaged price premium and avoiding major free riding on the Colombian coffee reputation.

Whereas elsewhere farmers acquire experiences, capabilities, knowledge during the effort-full process of establishing GIs (Giovannucci et. al., 2009), in Colombia, human capital development was restricted to the Federación and its organizations. Associated GI capacities of farmers are built now by specific GI training. This supports Hanna's (1995) argument that transaction efforts minimized in the ex-ante phase have to be invested afterwards, in our case after the registration. Similarly, the risk of finding agreement along the supply chain has been shifted to the implementation phase by involving international processors after registration only. Thus, the straight Colombian registration process avoided many risks often associated with participatory processes (Enengel et al., 2011; Hickey & Mohan, 2004) in the registration phase. The commercial success of the Colombian PGI strategy however ultimately depends on international processors' willingness to agree with the rules for PGI-use established by the Federación.

Though Cafe de Colombia PGI is already registered, we do not have the full picture of associated transaction costs, benefits and risks. But even if we had all the data, a full cost-benefit assessment would be very challenging, as it depends on the comparative assessments of different benefits and risks that cannot easily and convincingly be transferred in monetary values or other units that can be directly compared to time and monetary effort.

Preliminary conclusion

The analysis shows that efforts for GI registration and implementation are considerable and that most of them result from the interaction of various supply chain actors. We also see that efforts for individual producers and in the case of large numbers of producers, such as the coffee growers in Colombia, shall be shifted to producer organizations. In an institutional environment where robust pre-existing producer organizations with established rules for decision making and for the allocation of costs and benefits do not exist, professionally acting and well-staffed public authorities or experienced consultants can support producers on their (often long) way of self-organization and thus can considerably accelerate - and might even be a prerequisite for - a successful registration process. However in parallel, associated risks and benefits of group interaction with other (more numerous) and more heterogeneous supply chain actors will be postponed, too. Despite the insights generated from the cases analyzed, we have to be aware that their variability, each of them successful in itself, also indicates that there will be no panacea for a perfect GI registration and implementation process.

References

- Allen, D. W. (1991). What are transactions costs? *Research Law and Economics*, 14: 1–18.
- Belletti, G., & Marescotti, A. (2011a). Monitoring and evaluating the effects of the protection of Geographical Indications. A methodological proposal. In *The effects of protecting Geographical Indications. Ways and means of their evaluation*. G. Belletti, A. Marescotti, M. Paus, S. Reviron, A. Deppeler, H. Stamm, E. Thevenod-Mottet. Berne, Swiss Federal Institute of Intellectual Property: 31-121.
- Belletti, G., & Marescotti, A. (2011b). Origin Products, Geographical Indications and Rural Development. In *Labels of origin for food: local development, global recognition* E. Barham and B. Sylvander. Wallingford, UK, Cabi: 75-91.
- Bowen, S., & Zapata, A. (2009). Geographical indications, terroir, and socioeconomic and ecological sustainability: The case of tequila. *Journal of Rural Studies* 25: 108–119.
- Dixit, A. (2004). *Lawlessness and Economics: Alternative Modes of Governance*. Princeton: Princeton University Press.

- Enengel, B., Penker, M., Muhar, A., & Williams, R. (2011). Benefits, efforts and risks of participants in landscape co-management: an analytical framework and results from two case studies in Austria. *Journal of Environmental Management*, 92(4): 1256–1267.
- European Commission. (2013). DOOR database. Available at <http://ec.europa.eu/agriculture/quality/door/list.html>
- Falconer, K., Dupraz, P., & Whitby, M. (2001). An investigation of policy administrative costs using panel data for the English environmentally sensitive areas. *Journal of Agricultural Economics*, 52(1): 83–103.
- Falconer, K., & Whitby, M. (1999). Administrative costs in agricultural policies: the case of the English environmentally sensitive areas (ESAs). Centre for Rural Economy, University of Newcastle. Available at <http://www.ncl.ac.uk/cre/publish/pdfs/rr99.2a.pdf>
- Giovannucci, D., Josling, T., Kerr, W., O'Connor, B., & Yeung, M. Y. (2009). Guide to geographical indications. Linking products and their regions. Geneva, International Trade Centre. Available at www.intracen.org/WorkArea/DownloadAsset.aspx?id=37595
- Hanna, S. (1995). Efficiencies of user participation in Natural Resources Management. In *Property rights and the environment. Social and ecological issues*. S. Hanna and M. Munasinghe. Washington D.C., Beijer International Institute of Ecological Economics: 59-67.
- Hess, C., & Ostrom, E. (2005). A Framework for Analyzing the Knowledge Commons. In *Understanding Knowledge as a Commons: from Theory to Practice*. Cambridge, MA, MIT Press: 3-26. Available at <http://www.scribd.com/doc/27333114/Understanding-Knowledge-as-a-Commons-Theory-to-Practice-2007>
- Hickey, S., & Mohan, G. (2004). *Participation, from tyranny to transformation? exploring new approaches to participation in development*. London; New York, ZED Books.
- Ilbery, B., & Kneafsey, M. (2000). Producer constructions of quality in regional speciality food production: a case study from south west England. *Journal of Rural Studies*, 16(2): 217–230.
- McCann, L. B., Colby, K., Easter, W., Kasterine, A., & Kupera, K. V. (2005). Transaction cost measurement for evaluating environmental policies. *Ecological Economics*, 52: 527–542.
- Mettepenningen, E., & Van Huylenbroeck, G. (2009). Factors influencing private transaction costs related to agri-environmental schemes in Europe. In *Multifunctional Rural Land Management Economics and Policies*. F. Brouwer and C. M. van der Heide. London, Earthscan: 145-168. Available at <http://hdl.handle.net/1854/LU-609628>
- Muradian, R., & Pelupessy, W. (2005). Governing the coffee chain: the role of voluntary regulatory systems. *World Development*, 33(12): 2029–2044.
- Neilson, J. (2007). Institutions, the governance of quality and on-farm value retention for Indonesian specialty coffee. *Singapore Journal of Tropical Geography*, 28: 188–204.
- Ostrom, E. (2007a). A diagnostic approach for going beyond panaceas. *Proceedings of the National Academy of Sciences*, 104(39): 15181–15187.
- Ostrom, E. (2007b). Institutional rational choice: An assessment of the Institutional Analysis and Development Framework. In *Theories of the Policy Process*. P.A. Sabatier. Cambridge, MA, Westview Press: 21–64.

- Ostrom, E., Gardner, R., & Walker, J. (1994). *Rules, Games, and Common-Pool Resources*. Michigan, University of Michigan Press.
- Patton, M. Q. (2002). *Qualitative Research and Evaluation Methods*. London, SAGE Publications.
- Penker, M., & Klemen, F. (2010). Transaction costs and transaction benefits associated with the process of PGI/PDO registration in Austria. In 116th Seminar, European Association of Agricultural Economists, Parma, Italy: 1–13. Available at <http://purl.umn.edu/95213>
- Profeta, A., Balling, R., Schoene, V., & Wirsig, A. (2010). Protected Geographical Indications and Designations of Origin: An overview of the status quo and the development of the use of regulation (EC) 510/06 in Europe, with special consideration of the German situation. *Journal of International Food & Agribusiness Marketing*, 22(1-2): 179–198.
- Randall, A. (1981). *Resource economics: an economic approach to natural resource and environmental policy*. Columbus, Ohio, GRID Publishing.
- Reviron, S., & Chappuis, J. M. (2011). Geographical Indications: Collective Organization and Management. In *Labels of origin for food: local development, global recognition*. E. Barham and B. Sylvander. Wallingford, UK, Cabi: 45–62.
- Teuber, R. (2010). Geographical Indications of Origin as a Tool of Product Differentiation: The Case of Coffee. *Journal of International Food & Agribusiness Marketing*, 22 (3-4): 277-298.
- Yin, R. K. (2009). *Case study research: design and methods*. Los Angeles, SAGE Publications.