

The role of tradition and innovation among EU GI products and sustainable pathways within the GI scheme

Alessandro Gocci, M.Sc.

Vollständiger Abdruck der von der TUM School of Management der Technischen Universität München zur Erlangung des akademischen Grades eines Doktors der Wirtschafts- und Sozialwissenschaften (Dr. rer. pol.) genehmigten Dissertation.

Vorsitzender: Prof. Dr. Jens Förderer

Prüfer: 1. Prof. Dr. Christoph Lütge

2. Prof. Dr. Johannes Sauer

Die Dissertation wurde am 21.07.2021 bei der Technischen Universität München eingereicht und durch die TUM School of Management am 15.11.2021 angenommen.

Contents

1 Introduction	3
2 GI general context	5
3 The Synergy of Tradition and Innovation Leading to Sustainable Geographical Indication Products: A Literature Review	11
3.1 Publication details	11
3.2 Extended abstract	11
4 Methodology	13
5 Amending GI products as opportunity for innovation and sustainability	15
6 Between Tradition and Sustainable Innovation: Empirical Evidence for the Role of Geographical Indications	18
6.1 Publication details	18
6.2 Extended abstract	18
7 Discussion	20
8 Conclusion	23
Acknowledgements	25
References	26

1 Introduction

The evolution of industrial practices within the food sector led to a loss of traditions in agriculture. As a reaction to customer expectations, innovations created new market conditions in which traditional pathways are threatened. In the meantime, there is a call for sustainability within the agricultural sector to conserve the biodiversity of the cultivated areas and their surroundings. This dissertation investigates the role of tradition and the innovation of products which are protected by the geographical indication (GI) label. The European Union (EU) introduced this scheme as a response to the mass production of foodstuffs. Furthermore, the possibility of pursuing sustainable pathways through the combination of tradition and innovation in GI products is addressed here.

The GI scheme is conceived as a form of intellectual property, whose goal is designed to communicate specific features to the consumer and to shield the name from third party misuses. Features like quality and reputation are communicated through two different label types, both applied on agri- and non-agri products. They are differentiated according to the linkage of the product with its geographical area, through the protected geographical indication (PGI) label and the protected designation of origin (PDO) label, which has a stronger linkage than the former (European Commission 2012; Quiñones-Ruiz et al. 2016; Gocci and Luetge 2020). Besides the already mentioned aspects, the scheme was designed to fairly reward the farmers for their efforts and therefore, support rural areas in which GI products are often cultivated. The GI products are part of the local identity of the people and produced through manifested traditional practices which are fundamental to the definition of GI.

The market requires a competitive product and for this reason innovation plays an important role to upgrade traditional GI practices, without jeopardizing their identity. However, previous GI studies principally raised questions of legal and economic nature, scarcely touching aspects related to innovation. Furthermore, due to the interdisciplinarity of the GI topic, recent efforts can be observed especially about sustainability and rural development.

The dissertation contributes to the literature of GIs through two papers, whose rationale is the following: can innovation coexist in synergy with tradition? What triggers innovation within the GI scheme? It can be argued that GI producers expand the agricultural functions of this label when they combine tradition and innovation. Thus, another question arises, whether the GI scheme is capable of providing more than economic benefits in the protected area, completing the three dimensions of sustainability (social and environmental).

In the following, the document presents the general context of the GI scheme, focusing on regulation and procedures. Section 3 presents a literature review of the investigated key topics, summarized through the first original paper. The methodology applied is described in section 4. Section 5 gives more insights about the role of legal GI documents in relation to tradition, innovation, and sustainability. Further research was conducted following the main reasoning from that section and applying it to a broader scope, focusing on the product class 'fruits and vegetables'. This work is currently unpublished. Section 6 summarizes the results from the investigation of selected case studies, through the second original paper, which sheds light on the synergy of tradition and innovation with effects on sustainability. Section 7 provides a final discussion of the progress achieved during the research, and section 8 concludes.

2 GI general context

Before addressing the current context in which GI is framed, including definitions and regulatory aspects, an historical background of the idea of protected geographical products is necessary. The first traces of the GI date back to ancient times, for example the Greeks traded products such as oils, wines and cheeses from a region famous by the word of mouth. Innovation already played a key role as a reaction to economic and environmental limits, and at the same time, to maintain the quality of the product (Allaire et al. 2011). During the Middle Ages, the guilds defined collective standards for producers and managed hallmarks for signaling specific qualities in order to prevent usurpations (Thévenod-Mottet et al. 2011). An example can be found in 1395 when the Duke of Burgundy banned the Gamay grape variety because it was perceived to lower the quality of the Burgundy wine. This episode was a stimulus for better refinement of the collective management of the hallmarks. Throughout history different associations took responsibility to maintain the traditional character of products including their techniques, especially in periods of fast change and high standardization such as the Industrial Revolution (Allaire et al. 2011).

At the beginning of the mid-19th century, issues such as unfair competition, food safety and consumer deception were emphasized through globalization, since the movement of people, know-how and goods was simplified, thus demanding stricter legal requirements. As response, the Stresa Convention in 1951 was held to set the base for international protection of products, focusing on a cheese quality perspective. Eight states agreed on a high protection on four cheeses, which are nowadays considered GIs. However, national movements already took place before this event, especially in the Mediterranean countries. For instance, France created a legal framework similar to the GI regulation to protect wines in 1935. The system obtained an upgrade in 1955 for cheeses and would be extended to all the product classes in 1990 (Thévenod-Mottet et al. 2011).

On an international scale, the Trade-Related Aspects of Intellectual Property Right (TRIPS) was ratified in 1994, in which the articles 22, 23 and 24 focus on transparent GI protection. The rules described in the articles stem from

negotiations between stakeholders since the beginning of the Industrial Revolution. Milestones were, for instance, the Paris Convention in 1883 for the Protection of Industrial Property, the Madrid Agreement in 1891 where definitions of “false” and “deceptive” labelling was discussed in order to prevent market frauds, and the Lisbon agreement in 1958 where an international register of protected products was proposed. The interpretation of the TRIPS agreement differs on a national scale. For example, the United States of America (USA) follow a marketing-oriented approach with less attention paid to the protection of the products. For a long time, the EU strived towards a stronger regulation in order to clarify ambiguities generated by the various discussions on GI protection (Barham and Sylvander 2011).

The current valid GI regulation is part of the Common Agricultural Policy (CAP), whose goal is to establish one common agricultural market. The CAP was introduced in 1957, and by 2013, integrated into a wider set of policies (Tangermann and Cramon-Taubadel 2013). One core aspect is the idea of promoting a high-quality standard through the so-called “quality policy”. As a result of this, the EU also strives to provide fair returns to the producers, to conserve cultural gastronomic inheritance and food varieties, to strengthen the agricultural sector and to increase the competitive advantage in international markets. All those aspects are entailed within the concept of rural development which is highly praised by the EU because it grasps the dependency of rural areas on traditional food productions (European Commission 2012). Acknowledging this importance, the EU set the regulation for GIs under Council Regulation no. 2081/92 on July 24th, 1992. The year represents the foundation of the EU, unifying regulations of many national systems, also for the GI scheme (Regulation 1992).

Nowadays, the EU Regulation No. 1151/2012 (ratified on November 21st, 2012) updates previous rules entailed in Regulations 2081/92 and 510/2006 and clarified the GI definition as following: “The Regulation aims to help producers of products linked to a geographical area by: (a) securing fair returns for the qualities of their products; (b) ensuring uniform protection of the names as an intellectual property right in the territory of the Union; (c) providing clear

information on the value-adding attributes of the product to consumers” (European Commission 2012, p. 8). Within the regulation, some aspects support the EU in controlling the quality standards of GI products.

A GI product is defined and classified by the strength of the link with its geographical area, thus influencing its specific characteristics. The classification is made through the three logos provided by the EU (see figure 1).



Figure 1: GI Labels (European Commission, 2018)

The third label on the right, known as traditional speciality guaranteed (TSG), shields specific traditions of production, therefore expanding the quality policy pursued by the EU. It cannot, however, be classified as GI due to the absence of linkage with the area. The other two labels are GI certifications which producers can use for marketing or packaging aims (European Commission 2012, p. 3).

The blue PGI label, instead, communicates to the consumer that at least one production step is performed in the geographical area (European Commission 2012). PGIs are defined as follows: “...‘geographical indication’ is a name which identifies a product: (a) originating in a specific place, region or country; (b) whose given quality reputation or other characteristic is essentially attributable to its geographical origin; and (c) at least one of the production steps of which take place in the defined geographical area” (European Commission 2012, p. 8).

The red PDO label signals that all the production steps must be performed in the protected geographical area. Article 5 of the Regulation No. 1151/2012 provides the following definition for PDOs: “...‘designation of origin’ is a name which identifies a product: (a) originating in a specific place, region or, in exceptional cases, a country; (b) whose quality or characteristics are essentially or

exclusively due to a particular geographical environment with its inherent natural and human factors; and (c) the production steps of which all take place in the defined geographical area” (European Commission 2012, p. 8).

Although not directly mentioned in the definitions, other more subtle differences emerge from the comparison of the PDO and PGI schemes. For instance, PDOs rarely represent a country whereas for PGIs this is not uncommon (European Commission 2012). Also, the PDO scheme stresses the attention on the direct influence of natural and human factors on the quality of the product. These, in relation to the geographical area, are known under the term 'terroir'. On the contrary, PGIs require solely features correlated to the area (European Commission 2012). These differences show that the PDO scheme is stricter than the PGI, which is taken into account for the case studies selection, presented in section 4.

The GI label is usually not granted to a single firm but to a collectivity of users, who benefit, according to Moschini et al. (2008), of a “collectively owned“ intellectual property. Associations, who wish to file an application for registering a GI product, firstly undergo a national phase where the national authorities evaluate the registration request. In case of a positive outcome, the EU can proceed with the evaluation of the application. The same process applies to non-European GIs, who can file an application for obtaining the European certification, granted the fact that the application complies with the regulation (European Commission 2012).

The main component of the procedure is a document which entails the distinctive characteristics of the GI product, such as requirements of production and description of the geographical area (European Commission 2012, p. 10). Another key element is the product's name which cannot be generic. Thus, producers must indicate as specific as possible that the geographical area is represented by the proposed name. After successful registration, the product's name can only be changed under specific circumstances always complying with the GI regulation (European Commission 2012, p. 9). This information serves two purposes: first, it describes the product to the consumer and second, it

protects the reputation of the product name from misuse (European Commission 2012, p. 2).

The national offices and the EU require the contact information from the applicants, and the national product specifications, attached together with a document known as 'single document' (SD) which is visualized in figure 2 (European Commission 2012, p. 10).

SINGLE DOCUMENT	
	'...'
	EU No:
	PDO <input type="checkbox"/> PGI <input type="checkbox"/>
1.	NAME(S) '...'
2.	MEMBER STATE OR THIRD COUNTRY
3.	DESCRIPTION OF THE AGRICULTURAL PRODUCT OR FOODSTUFF
3.1.	Type of product
3.2.	Description of product to which the name in (1) applies
3.3.	Feed (for products of animal origin only) and raw materials (for processed products only)
3.4.	Specific steps in production that must take place in the identified geographical area
3.5.	Specific rules concerning slicing, grating, packaging, etc. of the product the registered name refers to
3.6.	Specific rules concerning labelling of the product the registered name refers to
4.	CONCISE DEFINITION OF THE GEOGRAPHICAL AREA
5.	LINK WITH THE GEOGRAPHICAL AREA
	Reference to publication of the specification (the second subparagraph of Article 6(1) of this Regulation)

Figure 2: Example of Empty Single Document for Registration as GI (European Commission, 2018)

The SD provides information such as name and description of the product, the area of production with related justifications about the linkage, contacts of the accountable authorities, packaging, and other labelling requirements (European Commission 2012, p. 9). The producers are also required to describe, in detail, all the production steps with regard to their relationship with the geographical area, which is important to determine whether they opt for a PDO or a PGI (European Commission 2012, p. 10).

If during the registration process, no objection was filed by any interested stakeholder, the GI label will be granted to the product and published in the official register (European Commission 2012, p. 21). Since 01/01/2020 the public

register is known under the name E-Ambrosia containing all the SDs. Before that, the database was known as 'Database of Origin and Registration' (DOOR) which excluded the category wine and spirits, handled under a different regulation and register. The new database shows that the GI scheme is moving towards a more holistic approach, even regarding non-agri products (e.g. porcelain) (European Commission 2012, p. 2). In some cases, GI products can be removed from the register if not able anymore to abide by the regulation or if their production is interrupted (European Commission 2012). In this research the analysis started from the DOOR database, as is discussed in section 4.

3 The Synergy of Tradition and Innovation Leading to Sustainable Geographical Indication Products: A Literature Review

This section provides a summary on the literature review paper which was developed to explore the state-of-the-art information about GIs and their relationship with tradition, innovation and sustainability. The paper was subjected to a double-blind peer review and published in an international journal. Accordingly, bibliographic details and extended abstract of the paper will be provided here.

3.1 Publication details

The coauthored literature review paper Gocci & Lütge (2020) was published in *Journal of Management and Sustainability* (ISSN 1925-4725; volume 10, pages 152-161). The postprint version of the paper is available via DOI: 10.5539/jms.v10n1p152. Author contributions are: research design A.G. & C.L., literature selection: A.G., theoretical model design: A.G., wrote the paper: A.G. & C.L.

3.2 Extended abstract

The traditional production of geographical indications (GIs) is struggling to react to external influences such as climate change, changing market conditions. There is a call for innovation within GI products without compromising traditional practices. In GI research, tradition and innovation are often debated because it appears that they exclude each other. However, there are findings that a combination of these two elements can have effects on sustainability (for reviews see, e.g. Bowen and Zapata 2009; Belletti et al. 2015; Belletti et al. 2017).

The paper discusses the relatively new literature about the synergy of tradition and innovation applied to GIs. This combination can be pursued from GI producers through a diversification approach, thus enabling observable results from a social, economic, and environmental perspective. Specifically, the aim is to show evidence about the coexistence of tradition and innovation among GIs. The TISyn (tradition-innovation synergy) model was introduced as tool for

increasing the understanding of how GI producers perceive and apply such a synergy. The model can be transferred to other research fields regarding tradition, innovation, and sustainability. However, the presented empirical evidence does not exclusively show positive outcomes arising from the synergy, but remarks how an unbalanced approach on innovation can jeopardize GI products, as shown in the case study of Bowen and Zapata (2009).

4 Methodology

In order to better grasp how GI producers reason about tradition, innovation and sustainability, an in-depth examination of 1398 SDs was carried out. When the analysis was conducted, the DOOR database was the only register available for collecting the material. It excludes wine and spirits which are also not taken into account in this dissertation. The E-Ambrosia unifies the different categories into one database for foodstuffs, wine and spirits, and even non-agri products. The here carried out analysis not only focuses on understanding the producers' perspective but also sets the base for selecting suitable case studies.

After the examination of the total number of 1398 SDs, 47 SDs show direct or indirect signs of tradition, innovation, and sustainability. 47% (22 out of 47) of the identified cases belong to the product class 1.6 'fruits and vegetables' which constitutes a suitable sample for identifying case studies with similar characteristics. Organization of the involved national institutions, history of using the label, and legal context of the product were other criteria considered for choosing the case studies. After overcoming all organizational barriers, three cooperations with GI producers were established: Stromberger Pflaume PDO (Germany), Carciofo Spinoso di Sardegna PDO (Italy) and Vlaams Brabantse tafeldruif PDO (Belgium). A mixed method approach was chosen for the comparative case study design. It allows to set a context, to analyze all details, and reduce possible biases. For these reasons, GI researchers often exploit this methodology (Yin 2009).

Between July and November 2019, semi-structured interviews with the PDO producers were conducted. The interviews had a duration between 60 and 120 minutes and entailed questions which explore the topics: tradition, innovation, and sustainability (economic, social and environmental). As a preparation for the analysis, the recorded interviews were transcribed and when necessary, translated. The software-supported (MAXQDA) qualitative content analysis was selected because of its capacity for identifying and organizing the information patterns and notions (Massengil 2014).

The two-step coding methodology from Gioia et al. (2013) was pursued to prepare the interviews for analysis. The definition of the codes is based on a wide theoretical background, stemming from GI research literature, in order to reduce the impact of biases. The 1st order analysis served to identify specific concepts such as profit, environmental protection, product improvements, tradition of production or tourism. Successively, the 2nd order codes provide wider notions such as economy, environment, traditional, social and innovative. Thus, the identified 1st and 2nd order codes were aggregated into main themes: tradition, innovation, and sustainability (Gioia et al. 2013).

Some challenges arose during the empirical data collection. Specifically, having a good number of interviews was challenging because the three cases analyze niche products, which are produced by small associations. Another limiting factor is the topic's complexity, which made some producers uncomfortable and therefore, decline the cooperation request leading to a knowledge gap. The latter also affected the sample size, although this was mitigated through targeted interviewed partners. Some incorporated a double function (e.g. producer and president/director) within the association and therefore, they were fully aware of the situation of the other associates. In order to draw a complete picture of the case studies, other stakeholders such as retailers, agricultural marketing centers and state agencies were involved through targeted surveys. The main goal is to reduce the influence of the producers' positionality and to broaden the perspective around the concepts of tradition, innovation, and sustainability. The data stemming from the interviews and the surveys were triangulated with supplementary collected material such as newsletters, websites, national product specifications, hard copies and when applicable, EU amendments of single documents.

5 Amending GI products as opportunity for innovation and sustainability

Section 5 is envisaged as the connection between the literature review paper and the case studies analyzed in the second publication, whose details will be provided in section 6. Some producers adjust their SDs in order to introduce innovations or to start sustainable pathways without disrupting tradition. This can be done through the amendments whose role is presented below. Although this idea was not fully exploited for the case study selection, the reasoning behind it helps build an understanding of how GI producers consider applying innovation to their product. Baritoux et al. (2016) and other researchers affirm that shifting environmental conditions, agricultural policies, new technological improvements, and other external factors push producers to upgrade their product in order to further protect the GI (Belletti et al. 2015; Baritoux et al. 2016; Bérard et al. 2016; Belmin et al. 2018; Clark and Kerr 2017). EU Regulation 1151/2012 and its previous versions grant the producers the right to request an amendment. Specifically, article 9 from EU Regulation 2081/92 points towards the possibility to apply for amendments which consider improvements of technological know-how (European Commission 2012; Quiñones Ruiz et al. 2018).

Based on recent findings, Marescotti et al. (2020) identified five macro-categories which serve as justification for requesting an amendment. An amendment can be requested in order to decrease costs or improve sales activities (market justification) or to comply with new policies (legal/policy). Furthermore, producers can request amendments to introduce new technological methods or tools to obtain a competitive advantage (technology/research) or to cope with the new sustainability guidelines regarding climate change (environmental sustainability). Finally, an amendment can be justified to reinforce the local tradition belonging to the product and its geographical area (Marescotti et al. 2020).

However, not only the above presented external factors influence the amendments on GI products, but also internal ones such as the number of involved stakeholders and their heterogeneous functions (Marty 1998; Dentoni

et al. 2012; Belmin et al. 2018; Brunori et al. 2016; Mancini and Consiglieri 2016). According to Bérard et al. (2016), product specifications and SDs undergo a constant adjusting process which stems from the confrontation among the GI stakeholders. Brunori et al. (2016) follow this idea stating that the GI system is an adaptive governance which is fostered through the territorial identity of the GI product and an equal allocation of resources and benefits among stakeholders (Bérard et al. 2016; Brunori et al. 2016). Due to the looser nature of the PGI scheme, the implementation of changing strategies is easier for the producers. Therefore, GI researchers argue that during the application phase the PGI scheme is preferred over the PDO.

The mixed method research of Quiñones Ruiz et al. (2018) revealed that GIs from the product class 1.3 'cheese' were the most amended, focusing mainly on methods of production, labelling rules or redefinition of the geographical area. Four selected PDO case studies highlighted that other motivations can lead to the intention of requesting an amendment. Specifically, the producers perceive the amendment as part of a long-term strategy to meet new consumer expectations and to make the production rules more flexible, hence implementing innovations (Quiñones Ruiz et al. 2018). Generally speaking, improving traditional techniques leads to higher production rates and decreased costs, thus exploiting market opportunities. However, this creates the dilemma of whether a GI product can remain traditionally faithful to its identity, and at the same time, be in-line with market expectations (Brunori et al. 2016; Quiñones Ruiz et al. 2018; Bérard et al. 2005). Therefore, clear policies and expertise are required to maintain the balance between tradition and innovation.

The first original paper shed light on the reasons why a producer would apply for an amendment. One of the main goals from an economic perspective is to define the production rules as strict as possible in order to restrain competition. Correctly informing the consumer goes hand in hand with the latter. New policies can also influence the shift towards environmentally-friendlier production. Sometimes specific conditions mentioned in the product specification cease to exist and therefore, producers are forced to modify the product. Edelmann et al. (2020) analyzed the role of social interactions among GI stakeholders in

connection with the amendment of the product. They argue that the GI network has an impact on the content of the requested amendment. The empirical findings are supported by Mancini (2013), who regards GIs and their capacity to adapt as a pillar for activating sustainable pathways. This adaptation is also viewed as collective innovation for upkeeping the identity of GIs (Mancini 2013; Edelman et al. 2020). The authors conclude that a careful implementation of food quality standards as a collective can attain the goals of sustainability. In this sense, having different expertises from stakeholders is fundamental to have successful products (Edelman et al. 2020).

In the above-mentioned article of Marescotti et al. (2020), a total of 379 GIs (PDO and PGI) from the product class 1.6 'fruits and vegetables' were analyzed and showed a total of 81 amendments mainly of products coming from France, Spain and Italy (Marescotti et al. 2020). After identifying five macro-categories as justification for amendments, the authors decided to focus on changes related to environmental sustainability, accounting for a total number of 21. The main justification for amending remains to be to obtain economic advantages (Riccheri et al. 2007; Marescotti et al. 2020). The scarce interest in environmental concerns is partially justified by the absence of a targeted EU legislation concerning GIs and sustainability (Marescotti et al. 2020).

As mentioned at the beginning of this section, the idea of amending the SD for innovation purposes was not the main focus during case study selection. However, Carciofo Spinoso di Sardegna (PDO) was chosen also because of the amendment granted by the EU in 2015 which displayed an overall effort towards sustainability (European Commission 2015). The amended SD specifically referred to more sustainable production techniques such as the use of drip irrigation systems to decrease productions costs and water consumption. Also, the environment benefitted from the implementation of new phytosanitaries which substitute toxic pesticides. Lastly, the GI producers installed mini-cameras to control the distance between the artichoke plants and their growth, which led to an enhanced yield and quality of the product (European Commission 2015).

6 Between Tradition and Sustainable Innovation: Empirical Evidence for the Role of Geographical Indications

Section 6 presents the second paper whose goal was to provide empirical evidence about the role of tradition in combination with sustainable innovations among GIs. Theoretical assumptions from the literature review were used as a base for designing the research framework. The article was subjected to a double-blind peer review and published in an international journal. Accordingly, bibliographic details and extended abstract of the paper will be provided here .

6.1 Publication details

The coauthored research paper Gocci, Lütge & Vakoufaris (2020) was published in *International Business Research* (ISSN 1913-9004; volume 13, pages 101-112). The postprint version of the paper is available via DOI: 10.5539/ibr.v13n9p101. Author contributions are: research design A.G. & C.L., data collection: A.G., qualitative analysis: A.G., wrote the paper: A.G., C.L & H.V.

6.2 Extended abstract

The role of innovation without disrupting tradition is increasing in importance within GI research. Next to maintaining competitiveness within niche markets, the topic of sustainability is put into focus by different GI stakeholders (Bowen and Zapata 2009; Belletti et al. 2015; Belletti et al. 2017; Marescotti et al. 2020). This paper aims to shed light on the combination of tradition and innovation and their effects on sustainability. A new framework was developed combining the concept of a GI entrepreneur, the Triple-Bottom line and the TISyn model which was conceived through the literature review. The framework can be used for holistic research of GI agricultural productions while focusing not only on economic factors but also on social and environmental ones. Three PDO products were researched as case studies using this framework: Stromberger Pflaume (Germany), Carciofo Spinoso di Sardegna (Italy), and Vlaams Brabantse tafeldruif (Belgium). The selection of these cases was based on a qualitative content analysis of GI documents, with the possibility of comparing

different national and institutional contexts, while using products belonging to the same product class 'fruits and vegetables'. Furthermore, the selection was refined by the available empirical material and the willingness and ability of GI stakeholders to engage in topics investigated here. The comparative case study approach allowed to qualitatively assess differences between the dimensions of sustainability within different contexts. Thus, it will help build a new theory around the synergy of tradition and innovation within the GI scheme. The results can support new GI policy designs and their implementation, which may benefit all the GI stakeholders in the long-run.

The article discusses how innovations applied in synergy with tradition can yield positive outcomes on sustainability. This is enabled through the diversification strategy of the GI producers, acting as entrepreneurs. The comparison of the case studies shed light on how different national contexts, availability of funding programs and history of using the GI label influence the strategies adopted to enable the synergy. Overall, the three case studies show variegated results regarding the three dimensions of sustainability, however, as the main finding it was observed that the economic motivation was the key driver for engaging in social and environmental concerns.

GIs can be perceived as dynamic socio-ecological systems benefitting from circular adaptation, such as innovations to improve traditional practices while yielding economic benefits (Quiñones-Ruiz et al. 2015; Edelman et al. 2020). Two case studies show that a collaboration between the producers and local authorities results in a stronger local identity of the GI product and therefore, leads to positive social and environmental effects. In the third case, the local authorities were not involved in the GI network which did not hinder the producers in achieving common goals because of their high involvement in strengthening the community. The paper acknowledges the very strong GI networks which evolve due to the local identity of the products. However, it recommends the introduction of policies promoting sustainable pathways through targeted GI funding programs focusing on the synergy of innovation and tradition.

7 Discussion

Presenting the rationale of GIs in section 2, the possible role of amendments in section 5 and the two papers examined, this dissertation shows a transdisciplinary approach towards GI research. In the following, the main messages are contextualized and critically discussed in regard to implications on future research.

Firstly, the literature review demonstrates that changing patterns trigger the GI producer to combine tradition and innovation (Quiñones Ruiz et al. 2018; Gocci and Luetge 2020). As Belletti et al. (2015) showed, this synergy can lead to an agricultural sustainable pathway, thus favoring rural development. However, Bowen and Zapata (2009) argued that innovation applied to a GI product while neglecting its traditional roots, can harm the quality of the product and its sustainability. The first paper offers the TISyn model as method to grasp the context in which institutions are set. Policy makers can operationalize aspects from that for introducing suitable regulations (Gocci and Luetge 2020).

Secondly, the results stemming from the case studies of the second original paper are in line with the existing GI research. All three case studies benefitted economically, socially and environmentally from the implementation of innovation with traditional practices, similarly to the case study of Tregear et al. (2016); here the Hungarian producers were not able to adequately exploit the social activities related to the GI (Tregear et al. 2016; Gocci et al. 2020). However, the Italian artichoke consortium showed an endeavor towards innovation and even based their market strategy on the application of it in synergy with tradition. These findings are aligned with the results of the case studies from Belletti et al. (2015) and Belletti et al. (2017), hence highlighting the importance of innovation for sustainability (Belletti et al. 2015; Belletti et al. 2017; Gocci et al. 2020).

Based on the findings in the original papers and other empirical data, conclusions and implications for GI producers and policy makers can be drawn. The research shows that GI producers must not exclusively focus on profit but should rather view the product in a holistic way for sustainable agriculture. The inclusion of

social and environmental aspects can strengthen the strategies of the GI producers. For example, operationalizing tourism can have a positive impact on the local economy, and simultaneously act as a marketing tool for the product and its area. Furthermore, producers should engage more with other GI stakeholders and build transdisciplinary networks with for instance research labs, which can support the pathway towards sustainable practices.

Within this dissertation there is a clear hint towards the responsibility of policy makers to engage in the introduction of innovations to attain sustainability. The regulations do not consider these aspects enough and new policies need to be shaped considering the synergy of tradition and innovation. One measure to promote the synergy can be found within the case studies. Funding programs have a high impact on production strategies and differ between the EU countries. For strengthening the GI scheme, it is required to create centralized EU funding which is designed to activate sustainable innovations and has a low threshold for accessing it. Another fundamental pillar to the GI products is consumer awareness. Research shows that the GI labels are not yet in the relevant mindset of the consumer and are often misunderstood. The task for the policy makers is to create clear information structures which explain the price premium, the unique product experience, and the benefits for sustainability.

As already mentioned above, each EU country interprets the GI scheme differently according to the role of the products for the society or to the history of usage of the label. In GI research there is a trend to focus on nation states with a long GI tradition. The second article is one of the few highlighting products from countries with short or medium history with GIs. Furthermore, the original papers presented in section three and six,

- (i) highlight that, the multifunctionality approach and the TISyn model can be exploited for assessing the sustainability of GIs, with a focus on how producers decide to combine tradition and innovation and the reasoning behind it, thus, exerting a positive impact on sustainability (Gocci and Luetge 2020),
- (ii) focus on how GI producers as entrepreneurs respond to the different national legislations and funding support programs, showing a diversified

business strategy. The overall message is that within this approach, tradition and innovation must be wisely combined in order to attain sustainability (Gocci et al. 2020).

The methodology presented through the research sets a base for future transdisciplinary studies. Following the GISETI framework the researcher is able to carry out systematic analyses on the complex construct of tradition, innovation, and sustainability. The amending process, shown in section five, can support the research since it shows how producers exploit opportunities for innovation.

Next to the above stated successes of this study, there are logically limitations. First, the existing literature on GIs in relation with tradition and innovation is scarce which possibly has an impact on the designed frameworks. Second, the main message from Gocci and Luetge (2020) is that tradition and innovation can coexist and activate sustainable pathways if properly combined. This novel statement requires future research, although empirical evidence can be found in the second original paper. Third, the role of the amendments was not fully evaluated in the case study selection. This might impact the full picture on innovations within GIs. Lastly, the research is limited to products from the PDO scheme. For a full investigation of the GI scheme, PGI products have to be included. The looser scheme favors innovation from a different perspective (Gocci et al. 2020).

To wrap up, future research should expand the investigations by including more countries, the PGI scheme and products which cover a larger surface. This would refine the here presented findings since they focus on niche products from small areas. Furthermore, it is recommended to enrich quantitative data for widespread investigations. The here presented qualitative methodologies are fit to reduce the complexity of the topic, thus, are able to be used as baseline for quantitative studies. This dissertation extends the existing body literature and should be regarded while developing future GI policies with respect to innovation and sustainability.

8 Conclusion

The first main aim of this dissertation was to find evidence of a coexistence of tradition and innovation among the GI products. Findings in literature and the case studies show that there is a synergy. However, the outcomes and interpretations differ from stakeholder to stakeholder. Triggers for innovation stem from pushing and pulling factors, such as gaining a market advantage, exploiting technological opportunities, pursuing eco-friendlier products, or reinforcing the local identity of the geographical area. A primary focus was laid on how the synergy might impact the three dimensions of sustainability. Evidence from the case studies show that tradition and innovation are interpreted differently among stakeholders, especially the producers. However, positive impacts of the synergy on the local identity, the economy, and the environment can be observed in all three cases.

The Italian GI producers stated that without innovation their product would cease to exist. Therefore, there is a need for reshaping GI policies towards innovation and sustainability. Findings from this study can support this process. Nowadays, the amendment is the only legal option to officially introduce innovations within the GI scheme. Furthermore, national discrepancies of the GI regulation pose another barrier for producers to activate their pathway toward innovation. The funding programs were highlighted by the Italian GI producers as an example of this. Due to the complex legal structure, it is almost impossible to make time-critical funding available for satisfying the products' strategy. The German and Belgian GI producers have a market advantage in this case because the national authorities support them with suitable options.

Currently, the EU is showing increasing interest in GIs as a strategy to achieve long-term sustainability goals. A special focus is on the role of innovation due to its capacity to nurture change. A base was set through the research of this dissertation which should encourage further studies also in other scientific fields. For example, some evidence suggests there is still weak promotion of the label to the consumer and other stakeholders. To conclude, this dissertation added new knowledge to the existing literature of GIs, being one of the first focusing on

tradition and innovation as synergy. Findings show that this could influence the future of GIs and their pathway towards sustainability. The debate around the dilemma of how to use innovation without disrupting the traditional identity of the GI is still ongoing and therefore, demands further research.

Acknowledgements

I would like to thank my doctoral advisor Prof. Christoph Lütge for his full commitment and support towards my person and my research. He had to expand his primary research interests and did this with great flexibility. Further I thank the Max Planck Institute for Innovation and Competition for funding my research and giving me the possibility to connect with like-minded research fellows. A special mention is reserved to my mentor Dr. Natale Rampazzo who supported me from the very beginning in this journey and shares my passion for geographical indications. Throughout my doctoral studies I was fortunate to visit several seminars offered by the Technical University of Munich. I want to thank the professors for their feedbacks and interdisciplinary take-aways, in particular Prof. Frank Belz with his great input on my methodology. Finally, I thank my family and my partner Nora for their support, without them this thesis would not have been possible.

References

- Allaire, Gilles; Casabianca, Francois; Thevenod-Mottet, Erik; others (2011): Geographical origin: A complex feature of agro-food products. In *Labels of origin for food: Local development, global recognition*, pp. 1–12.
- Barham, E.; Sylvander, B. (Eds.) (2011): Labels of origin for food: local development, global recognition. Wallingford: CABI.
- Baritoux, Virginie; Houdart, Marie; Boutonnet, Jean-Pierre; Chazoule, Carole; Corniaux, Christian; Fleury, Philippe et al. (2016): Ecological embeddedness in animal food systems (re-)localisation: A comparative analysis of initiatives in France, Morocco and Senegal. In *Journal of Rural Studies* 43, pp. 13–26. DOI: 10.1016/j.jrurstud.2015.11.009.
- Belletti, Giovanni; Marescotti, Andrea; Brazzini, Alessandro (2017): Old World Case Study: The Role of Protected Geographical Indications to Foster Rural Development Dynamics: The Case of Sorana Bean PGI. In William van Caenegem, Jen Cleary (Eds.): *The Importance of Place: Geographical Indications as a Tool for Local and Regional Development*, vol. 58. Cham: Springer International Publishing (Ius Gentium: Comparative Perspectives on Law and Justice), pp. 253–276.
- Belletti, Giovanni; Marescotti, Andrea; Sanz-Cañada, Javier; Vakoufaris, Hristos (2015): Linking protection of geographical indications to the environment: Evidence from the European Union olive-oil sector. In *Land Use Policy* 48, pp. 94–106. DOI: 10.1016/j.landusepol.2015.05.003.
- Belmin, Raphael; Casabianca, François; Meynard, Jean-Marc (2018): Contribution of transition theory to the study of geographical indications. In *Environmental Innovation and Societal Transitions* 27, pp. 32–47. DOI: 10.1016/j.eist.2017.10.002.
- Bérard, Laurence; Casabianca, François; Montel, Marie-Christine; Agabriel, Claire; Bouche, Rémi (2016): Salers Protected Designation of Origin cheese, France. The diversity and paradox of local knowledge in

- geographical indications. In *Cult. Hist. Digit. J.* 5 (1), e006. DOI: 10.3989/chdj.2016.006.
- Bérard, Laurence; Marchenay, Philippe; Casabianca, François (2005): Savoirs, terroirs, produits: un patrimoine biologique et culturel. In *Akdeniz Üniversitesi İdari Bilimler Fakültesi Dergisi* 10 (19), pp. 135–147.
- Bowen, Sarah; Zapata, Ana Valenzuela (2009): Geographical indications, terroir, and socioeconomic and ecological sustainability: The case of tequila. In *Journal of Rural Studies* 25 (1), pp. 108–119.
- Brunori, Gianluca; Galli, Francesca; Barjolle, Dominique; van Broekhuizen, Rudolf; Colombo, Luca; Giampietro, Mario et al. (2016): Are Local Food Chains More Sustainable than Global Food Chains? Considerations for Assessment. In *Sustainability* 8 (5), p. 449. DOI: 10.3390/su8050449.
- Clark, Lisa F.; Kerr, William A. (2017): Climate change and terroir : The challenge of adapting geographical indications. In *J World Intellect Prop* 20 (3-4), pp. 88–102. DOI: 10.1111/jwip.12078.
- Dentoni, Domenico; Menozzi, Davide; Capelli, Maria Giacinta (2012): Group heterogeneity and cooperation on the geographical indication regulation: The case of the “Prosciutto di Parma” Consortium. In *Food Policy* 37 (3), pp. 207–216. DOI: 10.1016/j.foodpol.2012.02.003.
- Edelmann, Hanna; Quiñones-Ruiz, Xiomara Fernanda; Penker, Marianne; Scaramuzzi, Silvia; Broscha, Kristina; Jeanneaux, Philippe et al. (2020): Social Learning in Food Quality Governance-Evidences from Geographical Indications Amendments. In *International Journal of the Commons* 14 (1).
- European Commission (2012): Regulation (EU) No 1151/2012 of the European Parliament and of the Council of 21 November 2012 on quality schemes for agricultural products and foodstuffs. In *Official Journal of the European Union* L 343, pp. 1–29.
- European Commission (2015): Official Journal of the European Union. EC No. IT-PDO-0105-01325, pp. 24–30.

- Gioia, Dennis A.; Corley, Kevin G.; Hamilton, Aimee L. (2013): Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. In *Organizational research methods* 16 (1), pp. 15–31.
- Gocci, Alessandro; Luetge, Christoph (2020): The Synergy of Tradition and Innovation Leading to Sustainable Geographical Indication Products: A Literature Review. In *JMS* 10 (1), p. 152. DOI: 10.5539/jms.v10n1p152.
- Gocci, Alessandro; Luetge, Christoph; Vakoufaris, Hristos (2020): Between Tradition and Sustainable Innovation: Empirical Evidence for the Role of Geographical Indications. In *IBR* 13 (9), p. 101. DOI: 10.5539/ibr.v13n9p101.
- Mancini, Maria Cecilia (2013): Localised Agro-Food Systems and Geographical Indications in the Face of Globalisation: The Case of Queso Chontaleño. In *Sociol Ruralis* 53 (2), pp. 180–200. DOI: 10.1111/soru.12004.
- Mancini, Maria Cecilia; Consiglieri, Claudio (2016): Innovation and marketing strategies for PDO products: the case of “Parmigiano Reggiano” as an ingredient.
- Marescotti, Andrea; Quiñones-Ruiz, Xiomara F.; Edelmann, Hanna; Belletti, Giovanni; Broscha, Kristina; Altenbuchner, Christine et al. (2020): Are Protected Geographical Indications Evolving Due to Environmentally Related Justifications? An Analysis of Amendments in the Fruit and Vegetable Sector in the European Union. In *Sustainability* 12 (9), p. 3571.
- Marty, Fabrice (1998): Which are the ways of innovation in PDO and PGI products? In Filippo Arfini, Cristina Mora (Eds.): *Typical and traditional products: rural effect and agro-industrial problems: Istituto di economia agraria e forestale. Facoltà di economia. Università di ...*, pp. 41–58.
- Massengil, Rebekah P. (2014): *Writing Sociology: A Guide for Senior Theses*.
- Moschini, GianCarlo; Menapace, Luisa; Pick, Daniel (2008): Geographical Indications and the Competitive Provision of Quality in Agricultural Markets. In *American Journal of Agricultural Economics* 90 (3), pp. 794–812. DOI: 10.1111/j.1467-8276.2008.01142.x.

- Quiñones Ruiz, Xiomara Fernanda; Forster, Hanna; Penker, Marianne; Belletti, Giovanni; Marescotti, Andrea; Scaramuzzi, Silvia et al. (2018): How are food Geographical Indications evolving? – An analysis of EU GI amendments. In *British Food Journal* 120 (8), pp. 1876–1887. DOI: 10.1108/BFJ-02-2018-0087.
- Quiñones-Ruiz, Xiomara F.; Penker, Marianne; Belletti, Giovanni; Marescotti, Andrea; Scaramuzzi, Silvia; Barzini, Elisa et al. (2016): Insights into the black box of collective efforts for the registration of Geographical Indications. In *Land Use Policy* 57, pp. 103–116. DOI: 10.1016/j.landusepol.2016.05.021.
- Quiñones-Ruiz, Xiomara F.; Penker, Marianne; Vogl, Christian R.; Samper-Gartner, Luis F. (2015): Can origin labels re-shape relationships along international supply chains? – The case of Café de Colombia. In *Int J Commons* 9 (1), p. 416. DOI: 10.18352/ijc.529.
- Regulation, Council (1992): Council Regulation (EEC) No. 2081/92 of 14 July 1992 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs. Off. In *J. Eur. Union* 208, pp. 1–8.
- Riccheri, Mariano; Benjamin, G. Æ.; Schlegel, Stephanie; Leipprand, Anna; others (2007): Assessing the applicability of geographical indications as a means to improve environmental quality in affected ecosystems and the competitiveness of agricultural products.
- Tangermann, Stefan; Cramon-Taubadel, Stephan von (2013): Agricultural policy in the European Union: an overview. *Diskussionsbeitrag*.
- Thévenod-Mottet, Erik; Marie-Vivien, Delphine; others (2011): Legal debates surrounding geographical indications. In *Labels of origin for food: Local development, global recognition*, pp. 13–28.
- Tregear, Angela; Török, Áron; Gorton, Matthew (2016): Geographical indications and upgrading of small-scale producers in global agro-food chains: A case study of the Makó Onion Protected Designation of Origin. In *Environment and Planning A* 48 (2), pp. 433–451.

Yin, Robert K. (2009): Case study research: Design and methods 4th edition. In
: United States: Library of Congress Cataloguing-in-Publication Data.