

National Institute for Economic Research

International Scientific-Practical Conference ECONOMIC GROWTH IN THE CONDITIONS OF GLOBALIZATION

XVIth Edition October 12-13, 2022

Conference proceedings

Volume I

Chisinau, 2022



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RESOLUTION of the International Scientific-Practical Conference "ECONOMIC GROWTH IN THE CONDITIONS OF GLOBALIZATION", October 12-13, 2022

The XVIth edition of the Scientific-Practical International Conference "ECONOMIC GROWTH IN THE CONDITIONS OF GLOBALIZATION" took place on October 12-13, 2022, under the auspices of the National Institute of Economic Research of the Republic of Moldova. The Conference was attended by representatives of the academic and university environment from the country and abroad, representatives of business and decision-makers, experts, and a large number of young researchers. The Conference brought together for debates and exchange of views about 150 participants from the Republic of Moldova, Romania, Ukraine, Belarus, Italy, Poland, Estonia, Turkey, Azerbaijan, and Bulgaria. During the plenary session and the five thematic sessions, 115 reports were presented and discussed.

The conference participants discussed topics of major interest for the economic, social, and demographic development of the Republic of Moldova and the countries in the region, approached from a theoretical and practical perspective. Among the most important topics were the following:

- ✓ the main macroeconomic indicators, the energy crisis and the skyrocketing prices of goods and services, uncertainties and risks caused by the Russian-Ukrainian war, as well as the consequences of the Covid-19 pandemic, drought, etc.;
- ✓ ensuring food security in the context of the current crises, the efficiency of agricultural production, trade in agri-food products on international markets, ecological agriculture, sectoral analyzes dedicated to soil properties, the goat sector, the growth of cherries and mushrooms, the meat and milk market, the analysis of the grain market and the wine sector, the role of small farms in the agricultural sector, the role of quality schemes and consumer perception, as well as addressing issues related to agricultural higher education;
- ✓ the new models of business development and the promotion of the circular economy, the constraints, and the results obtained in the course towards sustainable development. The determining role of digitization, the social and economic priorities, the risks, but also the advantages of this process were emphasized;
- ✓ the need to adapt societies to demographic changes, especially to the aging of the population, by adjusting economic and social policies to support citizens and communities to mitigate the negative effects of these changes. The importance of ensuring intergenerational solidarity, and creating favorable conditions for capitalizing on the human potential of all generations were emphasized;

- ✓ the priority directions of development of the Republic of Moldova in achieving the commitments undertaken by our country as a candidate country for EU accession, recovery policies, and resilience;
- ✓ the prospects of continuing cooperation between research institutes, developing joint projects aimed at solving the pressing problems of society, and generating economic and social progress.

It was found that:

- Economic resilience means not only recovery but also a remodeling of balances, a "new normal". The risks and vulnerabilities of post-crisis economic recovery are not correlated with social resilience and sustainable development. Supportive policies are necessary but should be adjusted at the local level. Their partial implementation or ineffectiveness of adjustment measures has divergent/adverse effects on the allocation of national resources and human capital.

- The implementation of the National Transfer Accounts methodology registers a significant economic life cycle deficit when the population's income does not cover consumption, this phenomenon is determined by the low demand for labor and the undervaluation of human potential.

- Consumption is ensured through intergenerational transfers. Due to low salaries, vacancies are not exploited, and the population continues to move towards migration, whether temporary or long-term. This situation jeopardizes the prospects of the economy's evolution, the sources of GDP formation, and its distribution.

- In the last two decades and, in particular, recent events - the Covid-19 pandemic and the military conflict between the Russian Federation and Ukraine, have highlighted various vulnerabilities of national and regional economies, which are proliferating, and governments are in a position to review their development patterns to revive their economies and make them more resilient to shocks. Competitiveness, in these conditions, remains one of the key elements, which must be the basis of the strategies of governments, in particular, but also of companies, in particular, for relaunch and development both in the short term and in the long term.

- Unlike the previous periods, currently, the agriculture of the Republic of Moldova is subject to concurrent and quite pronounced risks: pandemic, climatic and economic, including the risks caused by the state of war in Ukraine. And the countries analyzed in the presented reports are also facing a series of economic, climatic, economic, and financial challenges.

- The models applied in the circular economy, the collection of waste under the conditions of the circular economy, the sustainable use of natural resources, and the impact on the environment are to be evaluated and implemented in practice as quickly as possible, and the role of science and researchers consists in facilitating this transition through informational assurance, through consultations and education actions and awareness of this by all actors involved in the construction of this new

economic model, starting from the population, local authorities, the educational and civil community and ending with the business environment.

- Digitization is an indispensable tool of the circular economy model, that's why the participants drew special attention to its risks, as well as their management, opportunities, and advantages of digitalization. At the same time, some aspects related to social inequalities that can be generated by digitization were also mentioned.

- The presentations and debates in the financial field extended to all its components: monetary, budgetary-fiscal, investments, and green finance. Thus there was a convergence of opinions and fundamental benchmarks regarding relevant trends, policies, and practices, but also concrete solutions to overcome the identified barriers. A current and provocative topic put up for debate was the phenomenon of "capital flight" aka "the phenomenon of illicit financial flows". The need to identify these flows, analyze the international framework and implement good practices for the Republic of Moldova was emphasized, with the aim of combating and recovering illicit financial flows and recommending solutions to reduce the impact on the state budget.

- Regarding the demographic situation, it was found that the decline of the population of the Republic of Moldova is largely caused by the problem of migration, which is urgent for several reasons: the context that influences migration intentions; the impact on children whose parents are working outside the country; the challenges faced by migrants in destination countries and the consequences for national security.

- Changes in the age structure of the population influence the formation and redistribution of national resources. The population is aging, the burden on the active population is increasing, and the economic deficit of the life cycle for (pre)retirement age groups is increasing significantly.

- The policies regarding paternity leave have positive implications for the wellbeing of the child and the parents, but in their implementation, a series of difficulties arise: the precarious information of parents regarding the right to paternity leave; lack of encouragement and discrimination from employers; constraints related to time and circumstances at work (labor shortage); neglect of specific circumstances (premature birth, disability or health status of the mother or child; dependence on additional income from work)

- The analysis of the mortality phenomenon revealed the maintenance of a high level of deaths among the adult population due to non-communicable diseases (cardiovascular diseases, neoplasms), as well as liver cirrhosis and pneumonia. Depending on the place of residence, it was found that, regardless of the cause, mortality is consistently lower among the urban population than among the rural population. However, the socioeconomic crisis of the 1990s and the COVID-19 pandemic affected the urban mortality rate more. In order to solve the problems presented above, the conference participants formulated suggestions and recommendations intending to remedy the situation in various fields, adjusting the economic, social, and demographic policies in the conditions of internal vulnerabilities and external risks, as follows:

1. Improving entrepreneurial activity and increasing the competitiveness of enterprises:

- Associating companies in clusters, resulting from the urgent need to increase the competitiveness of companies and regions in the Republic of Moldova. The proposal of a theoretical model for evaluating the competitiveness of cluster management, the development of clusters representing an important parameter of the degree of business complexity and a determining factor of innovative activity.
- The adoption of new standards in the development of human capital in the extractive and oil industry to increase the countries' resilience to the energy crisis, caused by the war between the Russian Federation and Ukraine, but also the need to make the transition to the green economy.
- Consolidation of research and the competencies of decision-makers in the field of improving risk management at the micro- and macroeconomic level, associated with the volatility of foreign trade during crises - foreign trade being one of the main channels of transmission of external shocks;
- ➢ Increasing the efficiency of external assistance, offered by the EU to the Republic of Moldova to respond to various critical challenges in the development process, which determines the country's resilience to internal and external shocks, produced by the economic crisis, the Covid-19 pandemic and the war between the Russian Federation and Ukraine.
- > The development and strengthening of international scientific and technical cooperation to overcome the current global economic and humanitarian crises through the exchange of experience, the joint organization of public events, the use of infrastructure, and informational and analytical resources.

2. Sustainable development and increasing the resilience of the agri-food sector

- Applying the principles of sustainable development and the circular economy in partnership between urban and rural areas. It is necessary to strictly develop an official document regarding the circular economy in the Republic of Moldova.
- Promoting a new development path for rural regions, namely by implementing innovative solutions to improve resilience, and capitalize on local strengths and opportunities. They rely on a participatory approach to develop and implement their strategies, to improve their economic, social, and environmental conditions, in particular by promoting the solutions offered by digital technologies and circular business models.
- Identification of illicit financial flows, analysis of the international and national framework in the field, implementation of the best practices in combating this phenomenon in the Republic of Moldova, application of modern methods of recovery of illicit flows to reduce the impact on the state budget.

- Taking into account the fact that the most important source of ensuring food security in the Republic of Moldova is local agriculture. It is necessary to take urgent and effective measures to increase the production capacities in the agricultural sector, as well as to increase the state reserves of agricultural products, first of all - wheat, barley, corn, etc.
- Establishing at least three levels of responsibility for ensuring the food security of the country's population, including socially vulnerable beds: the first level is the family, and the household; the second level is local public administration bodies (mayors and districts); the third level – the corresponding state bodies (state reserves).
- Continuing the process of diversifying agricultural production based on the application of technologies, plant varieties, and/or productive animal breeds, resistant to droughts, diseases, pests, and other risk phenomena.
- Increasing the support offered to small farmers and young entrepreneurs developing agricultural businesses. Increased support with a special purpose must be given to producers trained in organic agriculture.

3. A complex approach to promoting social and demographic policies:

- The use of wage subsidies in order to reduce the risks of poverty among the vulnerable population. Development of social infrastructure and smart social inclusion measures for disabled people and pensioners.
- > The sustainable application of digitization to transform the labor market in the context of social and economic imbalances, ecological problems, and the polarization of social groups. Implementation of social economy structures through the development of social enterprises and capitalizing on the potential of vulnerable groups of the population.
- Implementation of intelligent policies to mitigate the negative consequences of demographic decline and population aging that have reached large proportions and are inevitable in the coming decades. Improving the policies regarding active aging and developing a resilient support system for the post-retirement period, adapted to the specifics of the age group and its needs.
- Intensification of mortality reduction policies with an emphasis on increasing the accessibility of quality medical services for the entire population, especially for those in rural areas, promoting a healthy lifestyle and preventing health-risk behavior.
- ➢ Focusing social policies on interrupting the cycles of disadvantages between generations and preventing the perpetuation of a self-replicating population category and the reproduction of poverty by increasing the standard of living of families with children, optimizing and modernizing the educational process, etc.
- Development of multidisciplinary research teams, ensuring the systemic and periodic character of studies, applying complex methods such as National Transfer Accounts, socioeconomic forecasting, longitudinal studies, and demographic projections, in order to identify long-term risks, and develop and implement social programs.

SESSION II THE RURAL ECONOMY AND INCREASINGTHE RESILIENCE OF THE SECTOR FOOD

CONSUMERS' PERCEPTION TOWARDS QUALITY CERTIFICATIONS: IS THIS THE KEY TO HELP RURAL AREAS' RESILIENCE?

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Summary

The still ongoing COVID-19 pandemic and the current Russia-Ukraine war have deeply impacted the world, with aftermath that will long last. The whole EU food supply chain has been placed under unprecedented stresses and consumers are one of the most impacted stakeholders as, on the one hand, they have concerns related to price increase, and on the other they are attracted by certified food, characterized by a combination of environmental and human factors which are linked to a specific territory.

Purpose: The purpose of this paper is to investigate in two different EU countries the extent to which voluntary quality marks such as Protected Designation of Origin (PDO) and Protected Geographical Identification (PGI) may influence consumers' choices, trying to evaluate if their use can help the resilience of the agrifood supply chain.

Research methods: The method consists of an empirical survey of young consumers in Italy and Poland. The sample groups were chosen from University students in both countries. A statistical evaluation of the differences found between the two sample groups is provided. The survey includes a preliminary qualitative research phase with personal dialogues useful for the formulation of the questionnaire, based on the real needs and expectations of consumers.

Results: The answers are slightly different in the two analysed countries. In Poland, the COVID-19 pandemic has been perceived as an average factor of habits changes while the Russia-Ukraine conflict has not influenced shopping behaviours. For the Italians, instead, these two crises have not changed University students' attitudes. The results show the importance of quality labels in consumer choice and the interest in PDO and PGI certifications which play a crucial role in the resilience of the rural economy by keeping those areas populated and rural traditions alive. **Keywords**: rural economy, resilience, quality marks, quality certification, questionnaire, protected designation of origin, protected geographical identification, empirical survey.

JEL: A13, D10, D91, Q56 **UDC**: 366.6

Introduction. Having a sustainable food chain in a world where global food demand keeps increasing has been a goal for many years. Among the several factors that can help achieving the desired sustainability, reconciling natural ecosystems with agricultural production is one of the most important (Lamarque & Lambin, 2015), together with consumers' attitude and choices towards criteria such as local sourcing, fair trade, environmental sustainability and sustainable foods labels (Aprile et al., 2012). This kind of attention towards food quality, origin and production methods has risen since the early 1990s, when food-related crises and scandals – such as the dioxin contamination and the mad cow disease – were widespread all over the world (Chenhao & Jukes, 2013), (Mol, 2014), (Varese & Cesarani, 2016), (Tarabella et al., 2019), leading to the implementation of new legislation in order to protect consumers (such as improvements on animal welfare law, new hygienic laws throughout several States such as China).

Moreover, the importance of this topic is reflected also by its inclusion in the United Nations' "2030 Agenda for Sustainable Development" (United Nations, 2015) which sets 17 Sustainable Development Goals (SDGs) to achieve a fairer and healthier world (Varese et al., 2022). Specifically, ending hunger, achieving food security, improving nutrition and promoting sustainable agriculture are included in Goal 2 (United Nations, 2015). Unfortunately, the United Nations' Sustainable Development Goals Report 2022 highlights that the COVID-19 pandemic and the Russia-Ukraine crisis triggered food shortages which are hitting the world's poorest individuals hardest (United Nations, 2022). Furthermore, climate-related shocks and growing inequality drive today's world on the verge of a global food crisis (United Nations, 2022).

Therefore, in this particular moment, it is of the utmost importance to investigate University students' experience and perception towards quality certifications, environment and food manufacturing. To this purpose, a broad and general topic was chosen also from a geographical point of view. In this preliminary study, which is still in progress, the Authors aim to compare data from at least two different cities (one in Italy and one in Poland), supposing that the students' approach to Protected Designation of Origin (PDO) and Protected Geographical Indication (PGI) products varies due to both a different feeling towards quality marks related to the territory and the differences between the economic systems (Verbeke et al., 2012).

The structure of this paper is as follows: Section 2 presents a brief literary review on the research subject, and Section 3 clarifies the research methodology. Thereafter, in Section 4, the results and a brief discussion regarding the research findings are given. Finally, Section 5 provides conclusions, limits and future research perspectives.

Literature review. An important source for the investigation of consumers' preference schemes can be found in the "Europeans, Agriculture and the CAP"

reports issued by the European Commission. Its latest report (European Commission, 2022) shows that more than nine out of ten interviewed Europeans believe in the importance of a short supply chain. Moreover, it states that slightly more than eight out of ten believe that respecting local tradition and know-how is a value in food products and that eight out of ten European citizens affirm that it is important to know which geographical area the food they want to purchase comes from. Similarly, the report highlights those eight out of ten European citizens believe that seeing a specific label that ensures quality of the product is important in their decision-making process (European Commission, 2022). These findings confirm previous scholars' studies on the same topic (Dimara & Skuras, 2005) which, in short, argue that certifications are the only instrument that may ensure food quality. On average, the above-mentioned figures do not significantly differ from the ones collected in the past by the European Commission (European Commission, 2020; European Commission, 2017). On the other hand, some differences may be found at specific country levels. For instance, by comparing quality label importance between 2020 and 2022, it appears that in Italy and Poland the importance has risen - respectively - by 3 and 1 percentage points while in Spain and Portugal it has fallen of 9 percentage points.

Nevertheless, European Union (EU) consumers do not seem to be fully aware of the importance of Geographical Indications (GIs) such as PDO and PGI. These schemes, which were initiated in 1992 with the goal of supporting the rural communities' income and informing consumers that production methods meet certain standards (Tarabella et al., 2019), (Flinzberger et al., 2022), are still not used at their best value.

In fact, the latest European Commission report (European Commission, 2022) shows that the most well-known logo is the organic one (recognised by more than six out of ten European citizen), while only four out of ten people know the PGI logo and less than two out of ten people know the PDO logo. Therefore, even if the EU already initiated and financed marketing measures to promote the knowledge of GIs, both internally and externally (Goudis & Skusas, 2020), these quality labels still need further efforts to be recognised and chosen, because familiarity with them does not increase sufficiently among EU consumers. In fact, since 2020 the knowledge percentage for organic logo, PGI and PDO almost did not increase (European Commission, 2020).

Nevertheless, as proved by several previous studies, there is a link between GIs and rural areas because these places can retain resources, obtain higher farmers' incomes, retain and consolidate social capital (Paffarini et al., 2019), (Schimmenti et al., 2021), (Poetschki et al., 2021).

Some scholars have furthermore highlighted that EU citizens believe that quality marks and labels as well as other certifications warranting that production methods meet certain standards can be used to promote sustainable land use, even if it means having to pay higher prices (Lamarque & Lambin, 2015), and to have healthier and safer products for human consumption (Toma et al., 2021).

Previous studies were conducted to analyse the relationship between voluntary quality marks and consumers' purchase intention on specific regional products (Likoudis et al., 2016), (Toma et al., 2021), (Sgroi & Modica, 2021), or on supply chain stakeholders' income (Mancini et al., 2019), (Paffarini et al., 2021), while this research covers a gap in literature as it investigates – at a national level and in two

different EU States – whether and how the COVID-19 pandemic and the Ukrainian crisis have modified consumer choices and whether the outcomes of the previous studies are still valid nowadays.

Method. The objective of our in-progress empirical study is to assess the knowledge of Italian and Polish University students with reference to quality marks, such as PDO and PGI, and to verify whether, during this particular period characterised by the still ongoing COVID-19 pandemic and the Russia-Ukraine conflict, they have increased purchase of these products, as well as whether they believe that these certification schemes can help the resilience of the agri-food supply chain. Our contribution focuses on designing a survey questionnaire which is tested in this pilot phase: some preliminary results are presented in this paper; the full research will be carried out during the next academic year.

With the purpose to achieve the above-mentioned objective, the following research questions (RQs) were answered:

• RQ1) Which of the two unpredictable crises affected University students' habits and which factors do they take into consideration in grocery shopping?

• RQ2) Have consumers changed their habits with reference to the purchase of PDO/PGI products during the two crises?

• RQ3) Are University students aware of the connection between territory and PDO/PGI products and of the positive impact they can generate while buying these products?

To answer these questions, an anonymous electronic survey was designed for bachelor, master and Ph.D. students, attending an Italian and a Polish University (University of Torino and Cracow University of Economics).

The investigation was conducted in both Universities between July, 1, and August, 31, 2022: considering that these months are in both countries a holiday period in the academic year, this research has to be considered as a preliminary one.

As suggested by Vermeir and Verbeke (2008), students were chosen because they represent a demographic target as *«they are in the end stage of forming their personal identity and developing a personal system of beliefs and values. Very likely, they will take their habits into their older age and therefore provide policy makers with ample possibilities to create sustainable food consumption habits within the* [...] *population*». In accordance to the above-mentioned authors, as students have a great potential to encourage and support new grocery shopping habits, their opinion can drive the consumption of foods bearing certification schemes, helping the resilience of the whole agri-food supply chain. Students will probably be key stakeholders for more conscious future consumption.

After an in-depth literature review on PDO and PGI certifications, a brief questionnaire was designed. It was developed considering that final consumers should be enabled to understand the meaning of these quality marks in order to experience the use of quality food linked to a specific territory, and to contribute to the resilience of the agrifood supply chain. Questionnaires used in previous published studies were also considered as inspiration (Mancini et al., 2019), (Toma et al., 2022). With the aim to find any imprecisions and to measure any limitations of the questionnaire (Vecchio and Annunziata, 2013), a pilot version of the survey was first tested on University students

in both countries. Following a few adjustments, a final version, fit to be managed through the "Computer-Assisted Web Interview" (CAWI) technique, was defined.

The questionnaire is divided into four different sections: the first aims at collecting general information on students' grocery habits and to verify if and how they changed during the pandemic and the Russia-Ukraine conflict, considering factors such as price, food quality and food country of origin.

The second is specifically designed to assess consumers' PDO and PGI products shopping attitudes. The third part aims at understanding whether the interviewees are aware of the connection between territory and PDO/PGI products and of the positive impact they can generate while buying these products. The last is a general section which collects personal data (age, gender, nationality etc.). The sample was recruited among students participating in summer University activities, such as exams. A link to the questionnaire was provided and results consider only completed questionnaires respecting the following inclusion criteria: students enrolled at the University of Torino (Italy) and at the Cracow University of Economics (Poland), aged between 18 and 27, which gave informed consensus to participate in the study. Data were collected and analyzed ensuring anonymity and confidentiality.

During the academic year 2020/2021, Italy counted almost 1.8 million University students (Ministero dell'Università e della Ricerca, 2022) while Poland had nearly 1.2 million (Statistics Poland, 2022). This preliminary study has included 88 students (62.5 Italian and 37.5 Polish). Questions have been tested using a 5-point Likert scale (Likert, 1932) with endpoints 1 and 5.

Results and discussion. The pilot phase herein discussed results in the collection of 88 questionnaires. Table 1 presents the current situation of the collected answers. Most of the respondents are in both countries' female (Italy: 65.45%; Poland 57.58%). With reference to age, in Italy 52.73% are aged 23-27 while in Poland most of the interviewed (63.64%) belong to the previous age-range (18-22). Finally, in both countries, most of the students (Italy: 58.8%; Poland: 78.79%) are enrolled in the Bachelor degree.

			Total				
			Number of respondents (N.)		Percentage (%)		
			Italy	Poland	Italy	Poland	
		Female	36	19	65.45	57.58	
Gender		Male	18	14	32.73	42.42	
		Prefer not to tell	1	-	1.82	-	
		Total	55	33	100.00	100.00	
		18-22	26	21	47.27	63.64	
Age		23-27	29	12	52.73	36.36	
-		Total	55	33	100.00	100.00	
		Bachelor	32	26	58.18	78.79	
Degree enrolment	of	Master or MBA	22	7	40.00	21.21	
		Ph.D.	1	-	1.82	-	
		Total	55	33	100.00	100.00	

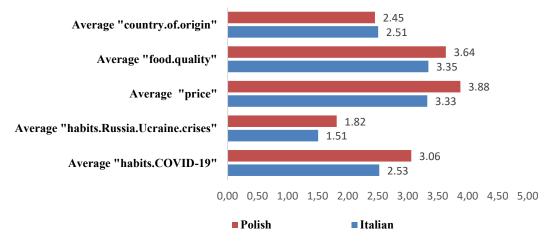
Table 1: Characteristics of the collected answers at the current stage

Source: Own survey.

Which of the two unpredictable crises affected University students' habits and which factors do they take into consideration in grocery shopping?

The answers are slightly different in the two analysed counties. In Poland, the COVID-19 pandemic has been perceived as an average factor of habits changes while the Russia-Ukraine war has not influenced shopping behaviours. For the Italians, instead, these two crises have not changed University students' attitudes.

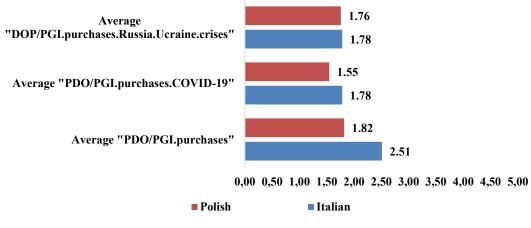
With regard to "price", it can be seen that Polish students affirm to pay much more attention to food price than Italians. "Food quality" and "country of origin" are almost considered in the same way in the two countries (Graph 1).



Graph 1: Q1. Source: Own survey.

Have consumers changed their habits with reference to the purchase of *PDO/PGI* products during the two crises?

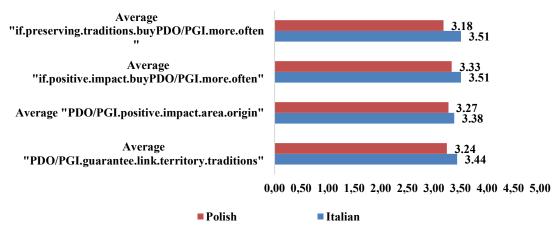
The answers in this section show that the surveyed University sample has a lower propensity to spend on PDO and PGI products. Furthermore, both research samples demonstrate a decrease in the purchases of these products during COVID-19 and the Russia-Ukraine conflict (Graph 2).



Graph 2: Q2. Source: Own survey.

Are University students aware of the connection between territory and PDO/PGI products and of the positive impact they can generate while buying these products?

This section also shows that Italian students are more sensitive to these topics. In fact, they demonstrate more consciousness about the relationship between PDO and PGI products and the territory and they are aware of their positive impact. These attitudes increase when they become aware the link between purchase of these products and impacts on the territory and on preservation of traditions (Graph 3).



Graph 3: Q3. Source: Own survey.

Conclusions, limits and future research. The present study sets out a preliminary analysis on two different University cities, one in Italy and one in Poland, aimed at understanding whether the students' approach to PDO and PGI products is different in the two countries, since distinctive levels of awareness towards the territory and its quality marks (Verbeke et al. 2012) and differences in the two economic systems were proved.

The idea of preparing this study is based on previous works which led the authors to raise some general research issues, suitable to be answered using a questionnaire based on a set of harmonized questions.

At the moment, the survey questionnaire was prepared and a pilot dissemination was carried out in the above-mentioned cities.

Some preliminary conclusions can be drawn from the updated data.

In both countries the two crises have not influenced grocery shopping habits. These results are rather surprising, because this kind of events usually have a deep impact on the population.

As assumed in the preparation of the questionnaire, Italian students are keener than Polish to purchase PDO and PGI products. In fact, in Italy such geographical certifications are more known, as they rely on ancient traditions and practices. On the contrary, Poland reflects the trend of the Northern European countries, which mostly link the concept of food quality to food safety. The conclusions described above find further confirmation in relevant European Union data. In Italy, the registered PDO and PGI products (food, wine and spirit drink) are 841, while in Poland the count stops at 34 (eAmbrosia, 2022).

In general, the results show the importance of quality labels in consumer choice and the interest in PDO and PGI certifications which play a crucial role in the resilience of the rural economy by keeping those areas populated and rural traditions alive.

The discussion of the preliminary results obtained needs to be deepened with larger samples; a more extensive administration of the questionnaire is currently carried out for this purpose. A possible broadening of the research concerns the opportunity to consider countries not yet investigated.

REFERENCES

- Aprile, M.C., Caputo, V., & Nayga, R.M. (2012). Consumers' valuation of food quality labels: the case of European geographic indication and organic farming labels. *International Journal of Consumers Studies*, 36(2), 158-165. <u>https://doi.org/10.1111/j.1470-6431.2011.01092.x</u>
- Chenhao, J., & Jukes, D. (2013). The national food safety control system of China A systematic Review. *Food Control*, 32, 236–245. <u>https://doi.org/10.1016/j.foodcont.2012.11.042</u>
- Dimara, E., & Skuras, D. (2005). Consumer demand for informative labeling of quality food and drink products: A European Union study case. *Journal of Consumer* Marketing, 22(2), 90-100. https://doi.org/10.1108/07363760510589253
- eAmbrosia (2022). The EU geographical indications register. Available at <u>https://ec.europa.eu/info/food-farming-fisheries/food-safety-and-quality/certification/quality-labels/geographical-indications-register/</u> (accessed 17 September 2022).
- European Commission (2017). Europeans, agriculture and the CAP. Special Eurobarometer 468, Report. Available at <u>https://europa.eu/eurobarometer/surveys/detail/2156</u> (accessed 17 September 2022).
- European Commission (2020). Europeans, agriculture and the CAP. Special Eurobarometer 504, Report. Available at <u>https://europa.eu/eurobarometer/surveys/detail/2229</u> (accessed 17 September 2022).
- European Commission (2022). Europeans, agriculture and the CAP. Special Eurobarometer 520, Report. Available at <u>https://europa.eu/eurobarometer/surveys/detail/2665</u> (accessed 17 September 2022).
- Flinzberger, L., Zinngrebe, Y., Bugalho, M.N., & Plieninger, T. (2022). EU-wide mapping of "Protected Designation of Origin" food products (PDOs) reveals correlation with social-ecological landscape values. *Agronomy for Sustainable Development*, 42, 43. <u>https://doi.org/10.1007/s13593-022-00778-4</u>

- Goudis, A., & Skusas, D. (2020). Consumers' awareness of the EU's protected designation of origin logo. *British Food Journal*, 123, 1-18, <u>https://doi.org/10.1108/BFJ-02-2020-0156</u>.
- Lamarque, P., & Lambin, E.F. (2015). The effectiveness of marked-based instruments to foster the conservation of extensive land use: The case of Geographical Indications in the French Alps. *Land Use Policy*, 42, 706-717. <u>https://doi.org/10.1016/j.landusepol.2014.10.009</u>
- Likert, R. (1932). A technique for the measurement of attitudes. Archives of Psychology. New York, USA.
- Likoudis, Z., Sdrali, D., Costarelli, V. & Apostolopoulos, C. (2016). Consumers' intention to buy protected designation of origin and protected geographical indication foodstuffs: the case of Greece. *International Journal of Consumer Studies*, 40, 283-289. <u>https://doi.org/10.1111/ijcs.12253</u>
- Mancini, M.C., Menozzi, D., Donati, M., Biasini, B., Veneziani, M., & Arfini, F. (2019). Producers' and consumers' perception of the sustainability of short food supply chains: the case of Parmigiano Reggiano PDO. Sustainability. 11(3), 721. <u>https://doi.org/10.3390/su11030721</u>.
- Ministero dell'Università e della Ricerca (2022). Portale dei dati dell'istruzione superiore. Tutti gli Atenei. Available at <u>http://ustat.miur.it/dati/didattica/italia/atenei</u> (accessed 17 September 2022).
- Mol, A.P.J. (2014). Governing China's food quality through transparency: A review. *Food Control*, 43, 49–56. <u>https://doi.org/10.1016/j.foodcont.2014.02.034</u>
- Paffarini, C., Torquati, B., Tempesta, T., Venanzi, S., & Vecchiato, D. (2021). Rural sustainability and food choice: the effect of territorial characteristics on the consumers' preferences for organic lentils. *Agricultural and Food Economics*. 9: 29. <u>https://doi.org/10.1186/s40100-021-00200-9</u>
- Poetschki, K., Peerlings, J., & Dries, L. (2021). The impact of geographical indications on farm incomes in the EU olive and wine sector. *British Food Journal*. 123, 13, 579-598. <u>https://doi.org/10.1108/BFJ-12-2020-1119</u>
- Schimmenti, E., Viola, E., Funsten, C., & Borsellino, V. (2019). The contribution of geographical certification programs to farm income and rural economies: the case of Pecorino Siciliano PDO. Sustainability. 13, 1977. <u>https://doi.org/10.3390/su13041977</u>
- Statistics Poland (2022). *Higher education in the 2021/22 academic year preliminary data*. Available at <u>https://stat.gov.pl/obszary-tematyczne/edukacja/edukacja/szkolnictwo-wyzsze-w-roku-akademickim-20212022-wyniki-wstepne,8,8.html (accessed 17 September 2022).</u>
- Tarabella, A., Varese, E., & Cesarani, M.C. (2019). EU Voluntary Certification Schemes for Agricultural Products and Foodstuffs. *Food Products Evolution: Innovation Drivers and Market Trends*. SpringerBriefs in Food, Health, and Nutrition. Springer, Cham, 59-77. <u>https://doi.org/10.1007/978-3-319-23811-1_5</u>
- Toma, P., Manta, F., Morrone, D., & Campobasso, F. (2022). Familiar worldwide: how PDO products reflect quality in consumers' appraisal and behaviour. *The TQM Journal*, ahead-of-print(ahead-of-print). <u>https://doi.org/10.1108/TQM-07-2021-0216</u>

- United Nations (2015). Resolution adopted by the General Assembly on 25 September 2015. Available at <u>https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E</u> (accessed 17 September 2022).
- United Nations (2022). The Sustainable Development Goals Report, available at <u>https://unstats.un.org/sdgs/report/2022/The-Sustainable-Development-Goals-Report-2022.pdf</u> (accessed 17 September 2022).
- Varese, E., & Cesarani, M.C. (2016). Labelling and hygienic-sanitary safety in China: Results of a preliminary survey based on a sampling of Chinese consumers. Atti XXVII Congresso Nazionale di Scienze Merceologiche "Qualità & Innovazione per una economia circolare ed un futuro sostenibile", Viterbo, 2-4 March 2016; 44-50.
- Varese, E., Cesarani, M.C., & Wojnarowska, M. (2022). Consumers' perception of suboptimal food: strategies to reduce food waste. *British Food Journal*, aheadof-print. <u>https://doi.org/10.1108/BFJ-07-2021-0809</u>
- Vecchio, R., & Annunziata, A. (2013). Consumers' attitudes towards sustainable food: a cluster analysis of Italian University students. New Medit, 12(2), 47-56.
- Verbeke, W., Pieniak, Z., Guerrero, L., & Hersleth, M. (2012). Consumers' awareness and attitudinal determinants of European Union quality label use on traditional foods. *Bio-based and Applied Economics*, 1, 213-229.
- Vermeir, I., & Verbeke, W. (2008). Sustainable food consumption among young adults in Belgium: theory of planned behaviour and the role of confidence and values. Ecological Economics, 64(3), 542-553. <u>https://doi.org/10.1016/j.ecolecon.2007.03.007</u>

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