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ETHNIC DIVERSITY AND REGIONAL DEVELOPMENT IN POLAND

Katarzyna Łukaniszyn-Domaszewska ¹

Summary: In Poland, the region where ethnic diversity is the most noticeable is the Opole region, characterized by a high concentration of ethnic Germans. Because of their origin, they have German citizenship, or the right to acquire it, in addition to Polish citizenship. The political changes of 1989 have enabled this particular population group to undertake a number of initiatives and activities, mainly focused on German minority organizations. Moreover, until Poland's accession to the EU, the increasing wage migration of the ethnic German population became a key factor in the development of their region of origin, the Opole Province.

In addition to the cultural diversity, the Opole Province is characterized by a number of other important features, including intensive wage migration to the West, relatively low unemployment, a higher than average standard of living, a well-developed economic and social infrastructure, and a high degree of urbanization and industrialization. It appears that these characteristics are related both to the people of German origin living in the Opole region and to the activity of the German minority organizations, that have had a significant impact on the socio-economic diversity of the area and on the development of the whole Opole region as well.

The aim of the paper is to show the role of ethnic diversity in the context of regional development, as well as the fact that ethnic diversity can be a significant regional potential, using the example of the German minority in Poland.

The conducted studies show that the role of ethnic diversity, understood as the German minority, is considered positive and that its existence and activity should be classified, on the one hand, as an essential contribution and added value from the regional perspective and, on the other hand, as a great potential for the further development of the Opole Province.

Keywords: German minority, ethnic diversity, national minorities and ethnic groups, regional development, Poland

JEL classification: F53, F63, R11

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Introduction

Recently, the role and importance of ethnic diversity has been playing an increasingly important role. Not only in the context of globalization, but especially in the context of the current refugee issue, particularly with regard to Ukraine.

According to the migration crisis, ethnic diversity can be considered in the framework of a relationship with social capital (Laurence, 2011; Thomas, 2014; Koopmans & Schaeffer, 2016; Fernando & Pendakur, 2014; Crawley & Skleparis, 2018) and according to the migration crisis (Crawley & Skleparis, 2018; Carling & Schwel, 2018; Fitzgerald, 2020).

Indeed, the literature suggests that ethnic diversity can positively influence the educational process, particularly language proficiency (Maestri, 2017). Furthermore, diverse ethnic environments and backgrounds provide valuable experiences and skills for new educational, community, and work environments (Nishina et al., 2019). In addition, ethnic diversity can have a positive impact on students' mental health, attitudes toward other groups, and adjustment to school (Graham, 2018).

According to the literature, ethnic diversity can have an impact on well-being (Akay et al., 2017) and economic growth and development (Alesina & La Ferrara, 2005; Montalvoa & Reynal-querol, 2005), as well as on innovation and entrepreneurship (Nathan, 2015; Nathan & Neil, 2013).

Basically, regions inhabited by national and ethnic minorities are characterized by outstanding foreign language skills of their inhabitants. Maestri's study (Maestri, 2017) proves that ethnic diversity has a positive impact on minority students' test scores, especially on language proficiency. Principally, ethnic diversity boosts language proficiency and increases the amount of time students spend learning.

Ethnic diversity at the grade level appears to have a positive impact on the appreciation of multiculturalism in educational studies conducted in lower vocational education, which continues to provide support for the contact hypothesis and intergroup contact theory (Geel & Vedder, 2011).

In addition, Mickiewicz et al (2019) examined the effects of ethnic diversity and immigration on entrepreneurship, distinguishing between individual and environmental characteristics. The authors hypothesized that as ethnic diversity increases, the probability of starting a first job decreases.

The purpose of the study is to demonstrate the role of ethnic diversity in the context of regional development, as well as the fact that ethnic diversity can represent a significant regional potential. The research method is the analysis of literature on the subject and existing research, as well as own research including a survey conducted among local government officials concerning their opinion on ethnic diversity, in this case the German minority, in the context of regional development.

1. Material and Methods

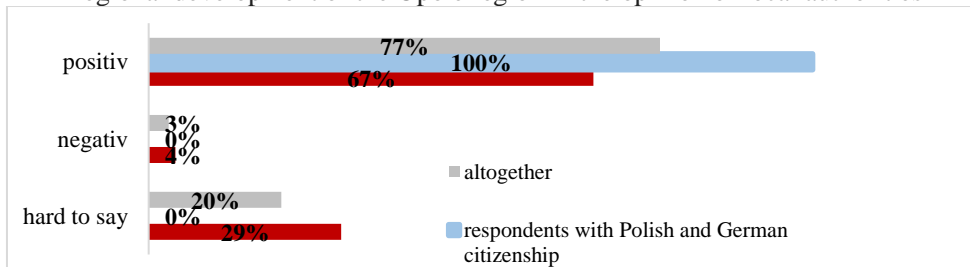
The Opole region was chosen as the study area because it is home to the largest population of the German minority in Poland. Moreover, this region is relatively small, so the impact of this population group's activities is likely to be felt significantly in it.

Currently, about 200,000 Germans, or about one-fifth of the population of the entire region, live in the predominantly rural areas of the central-eastern Opole Province, where they dominate in number and have lived for generations. This area differs from other Polish areas not only in its cultural and ethnic diversity, but also in a number of other important features, e.g., intensive economic migration, relatively low unemployment, urbanization, highly developed infrastructure, industrialization (Jończy & Łukaniszyn-Domaszewska, 2018). The questionnaires were addressed to 183 local government officials of the Opole region. The surveyed group of local government officials of the Opole Province was divided into two groups: those who have only Polish citizenship (68% of all respondents) and those with dual citizenship, both Polish and German one (32% of all respondents).

2. Ethnic diversity of the Opole region in the opinion of the regional authorities

The first problem studied was whether the ethnic diversity identified by the German minority positively influences the regional development of Opole Voivodeship in the opinion of the regional authorities studied (Fig. 1). It turned out that the majority confirmed that ethnic diversity has a positive impact on the regional development (77%). Moreover, this thesis was confirmed by all representatives of German origin and 67% of respondents with Polish citizenship.

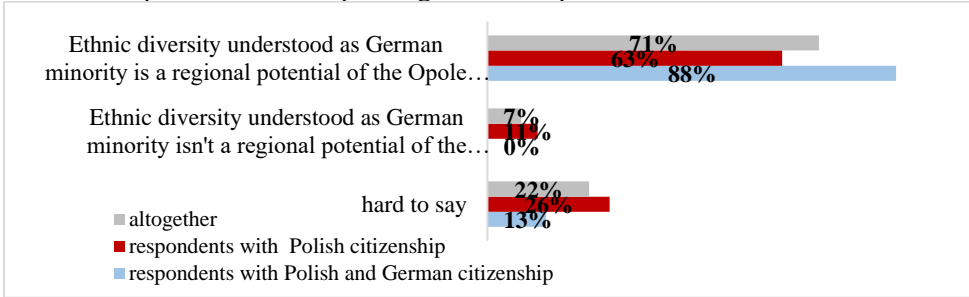
Figure 1. The influence of ethnic diversity understood as German minority on the regional development of the Opole region in the opinion of local authorities



Source: own elaboration

Another question investigated was whether, in the opinion of the respondents, ethnic diversity, understood as a German minority, should be treated as a regional development potential (Fig. 2). The answers prove that the German minority represents a significant development potential of the region according to the assessment of the majority of local self-government officials (71%).

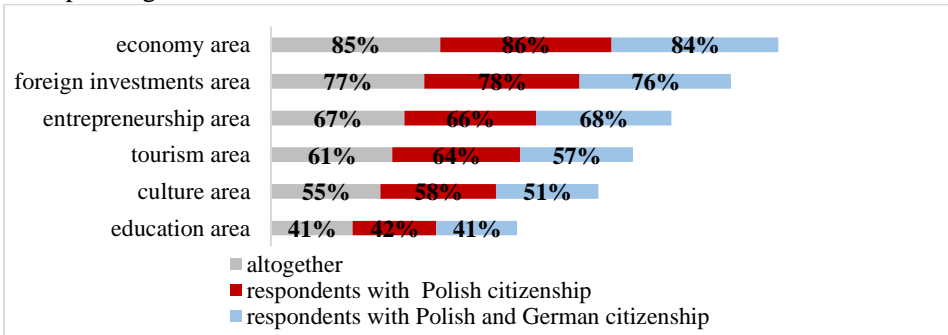
Table 2. Ethnic diversity understood as German minority as regional development potential of the Opole region in the opinion of local authorities



Source: own elaboration

Further question was related to the postulated areas of development in which ethnic diversity, understood as German minority, could be used (Fig. 3). Respondents most frequently mentioned economic development (85% of all respondents), then attracting foreign investment (77%), followed by entrepreneurship development (67%), tourism (61%), and cultural development (55%). The fewest, though still quite frequent, responses were related to educational development (41%).

Figure 3. Development areas of the ethnic diversity understood as German minority in the Opole region.



Source: Own elaboration.

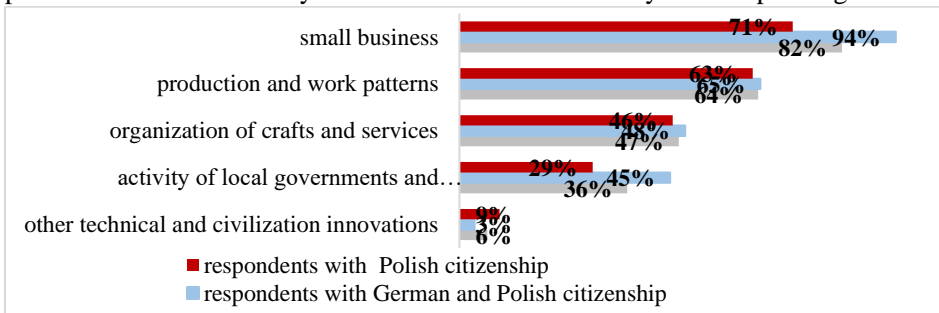
An important research question was whether, according to the local authorities, the Opole region adopts modern technical and civilizational solutions from Germany thanks to the presence of the German minority. Therefore, an attempt was made to analyse the influence of the German minority on development and technology transfer, and then to investigate what technical and civilizational solutions the Opole region adopts from Germany (Fig. 4).

It appeared that most of the responses concerned knowledge and technology transfer in the small business sector, as well as the transfer of production and work patterns and the organisation of crafts and services. On the other hand, there was less

information on knowledge and technology transfer in the area of the functioning of local governments and city councils.

It is particularly noteworthy that the proportion of responses indicating the technical and civilizational solutions adopted from Germany, production and work patterns, as well as the area of organization of crafts and services, was almost identical in the groups of respondents with and without German citizenship. There were greater differences between the two groups of respondents in the impact on small business (the most frequently mentioned area) and on the functioning of local governments.

Figure 4. Technical and civilization solutions adopted from Germany thanks to the presence of ethnic diversity identified as German minority in the Opole region.



Source: Own elaboration.

Conclusion

Studies have shown that the ethnic factor plays an notable role in the regional development. The analysis of literature on this topic shows that ethnic diversity can have a positive impact on language skills (Maestri, 2017; Nishina et al., 2019), innovation (Nathan, 2015; Nathan & Neil, 2013), and entrepreneurship (Mickiewicz et al., 2019). In addition, ethnic diversity leads to a stronger positive link between remittances and new business creation in developing countries (Yavuz et al., 2022).

This is confirmed by research in the local government environment, which clearly shows that ethnic diversity - in this case the German minority - has a remarkably positive impact on the regional development.

Research in the local government environment has confirmed that ethnic diversity can represent significant regional development potential and added value for the region. Regrettably, this potential is not yet fully realized, and regional authorities should take steps to make greater use of ethnic groups in the region.

The representatives of the local government also pointed out that thanks to the ethnic diversity of the Opole region, i.e. the German minority, the Opole region adopts modern technical and civilization solutions from Germany, which affects the development and technology transfer to the region. This is especially true in the field of small business, but also in the method of production and work, the organization of crafts

and services, while the influence of the Germans in the Opole region is less visible in the field of the functioning of local administrations.

It can be concluded that the presence and spread of various ethnic groups, as well as national and ethnic minorities or refugees, currently represent a major challenge for the modern world, both socially and economically.

Therefore, regional authorities should exploit the potential of proper management of ethnic diversity, as ethnic groups should undoubtedly be an integral part of regional development and an important feature of socio-economic development. This paper also points to the need for further research concerning the German minority and other national and ethnic minorities, especially in the context of current events in Europe. Thus, there is no doubt that the issue of ethnic diversity requires further research, and should be a significant element in building development strategies for regions inhabited by national and ethnic minorities.

It is worth emphasizing the group of limitations of this study related to a focusing only on two databases, that indexing mainly English-language texts. As well as the fact that not all published scientific texts have been indexed in WoS and Scopus.

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THE ROLE OF MARKETS IN THE ENTREPRENEURIAL ECOSYSTEM AND THEIR ASSESSMENT IN THE REPUBLIC OF MOLDOVA

Natalia Vinogradova¹

Summary: The availability of accessible markets contributes to increased sales and profit growth, stimulates competition, promotes innovation, and encourages economic integration. Some researchers even argue that the purpose of entrepreneurial ecosystems is to create and operate markets for entrepreneurship development. The article has two main objectives: (i) to define the role of markets as a component of the entrepreneurial ecosystem based on an analysis of various models of the entrepreneurial ecosystem's structure; (ii) to assess some indicators, characterizing market as an ecosystem's component in the Republic of Moldova. A survey of entrepreneurs carried out in 2022 in 25 regions of the Republic of Moldova, showed a relatively high level of competition and demand in the domestic market. However, the practice of cooperation with other enterprises is still not sufficiently developed. The majority of entrepreneurs assessed the market access factor negatively, especially since access to both the CIS and the EU markets is particularly difficult at present.

Keywords: Markets, entrepreneurial ecosystem, survey assessment, Republic of Moldova

JEL Classification: L10, L26, M21, C83

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Introduction

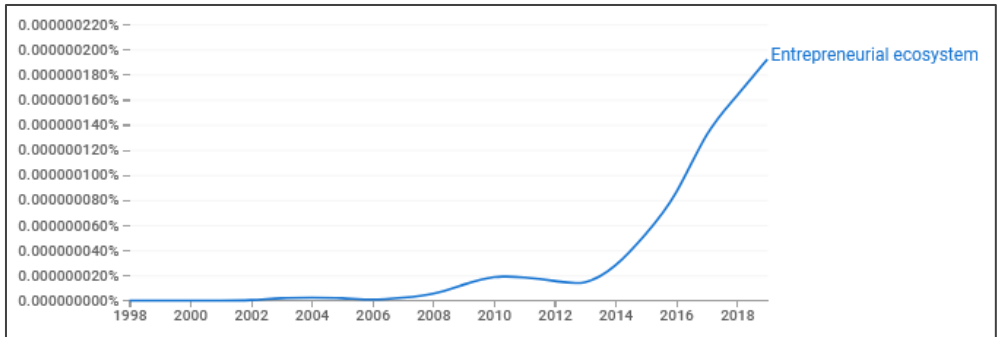
According to many studies, entrepreneurship is the driving force behind economic growth and development both in countries with developed market economies and those in transition (Smallbone & Welter, 2003; Audretsch et al., 2006; Aculai et al., 2020).

However, to develop effectively, entrepreneurship must operate in a favorable socio-economic environment. Recently, the totality of participants and factors in such an environment has been reflected in the concept of an “entrepreneurial ecosystem”. This concept largely continued and replaced such previously popular concepts as “clusters”, “innovation districts”, and “industrial regions”.

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As the analysis of the frequency of use of the concept of “entrepreneurial ecosystem”, carried out using the online service Google Books Ngram Viewer, shows, over the past two decades in English-language books, the subject of the entrepreneurial ecosystem has become an object of the increased interest of researchers and practitioners (Figure 1).

Figure 1. Google Books Ngram for the phrase “Entrepreneurial ecosystem” from 1998 to 2019



Source: elaborated by the author at <https://books.google.com/ngrams/>

But at the same time, despite the growing number of publications on this topic, researchers have not yet come to a consensus on the term “entrepreneurial ecosystem”.

The term “ecosystem” in economics became widespread after the publication of the scientific article “Predators and Prey: A New Ecology of Competition” by James F. Moore in 1993 (Moore, 1993). Moore introduced the new for his time concept of “business ecosystem”, by which he understood a system that includes companies that “work cooperatively and competitively to support new products, satisfy customer needs, and eventually incorporate the next round of innovations”. A similar concept was proposed by Deborah J. Jackson (2011), who described her definition of an entrepreneurial innovation ecosystem as “complex relationships that are formed between actors or entities whose functional goal is to enable technology development and innovation”. According to the definition given by Daniel Isenberg, founder of the Babson Entrepreneurship Ecosystem Project, an entrepreneurial ecosystem is a dynamic, self-evolving network of interconnected agents that promote entrepreneurship in their region (Isenberg, 2011). Peter Vogel, in a workshop organized by the OECD and LEED in 2013, defined the entrepreneurial ecosystem as “a dynamic, interactive community within a geographic region, composed of varied and inter-dependent actors (e.g. entrepreneurs, institutions and organizations) and factors (e.g. markets, regulatory framework, support setting, entrepreneurial culture), which evolved over time and whose actors and factors coexist and interact to promote new venture creation” (Vogel, 2013). According to the 2014 OECD definition, an entrepreneurial ecosystem is “a set of interconnected entrepreneurial actors (both potential and existing), entrepreneurial organizations (e.g.

firms, venture capitalists, business angels, banks), institutions (universities, public sector agencies, financial bodies) and entrepreneurial processes (e.g. the business birth rate, numbers of high growth firms, levels of 'blockbuster entrepreneurship', number of serial entrepreneurs, degree of sell-out mentality within firms and levels of entrepreneurial ambition) which formally and informally coalesce to connect, mediate and govern the performance within the local entrepreneurial environment” (Mason & Brown, 2014). According to Stam E. & Spigel B. (2016), the entrepreneurial ecosystem is defined as “a set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship within a particular territory”.

Thus, the term “entrepreneurial ecosystem” brings together entrepreneurs and all elements of the environment that interact to develop entrepreneurship and ensure economic growth.

Entrepreneurial ecosystems with accessible markets are important for facilitating business growth in the region. The presence of accessible markets, both local (OECD et al., 2020) and foreign (Nagy et al., 2012), contributes to increased sales and profit growth, stimulates competition, promotes innovation and economic integration. Some researchers even define the concept of an entrepreneurial ecosystem as a metaphor for the more traditional term “markets”, noting as the purpose of entrepreneurial ecosystems is “to create and operate markets...” (Audretsch et al., 2019)

Research Methods

In this article, one of the research methods is desk research, which includes a comprehensive review of modern academic literature in order to characterize the role of markets as a component of entrepreneurial ecosystems within the framework of various models proposed and substantiated by researchers. Additionally, the component “Markets” of the entrepreneurial ecosystem of the Republic of Moldova was evaluated based on a survey of entrepreneurs carried out as part of the applied scientific project “Multidimensional assessment and development of the entrepreneurial ecosystem at the national and regional level in order to boost the SME sector in the Republic of Moldova”, implemented at the National Institute for Economic Research of Moldova between June and October of 2022. A total of 204 enterprises from 25 districts of the Republic of Moldova participated in the survey.

The Role of Markets Based on Entrepreneurial Ecosystem Models

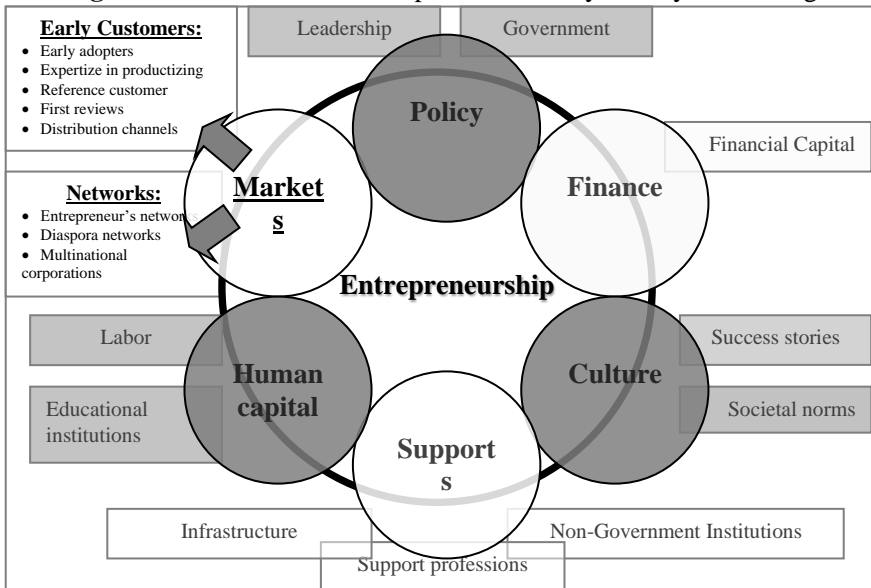
Foreign studies highlight several key approaches to describing the structure of the entrepreneurial ecosystem. Our article will focus on those of them in which markets are identified as a separate constituent element of entrepreneurial ecosystems.

Model of the Entrepreneurial System by Isenberg

The popular entrepreneurial ecosystem model of Daniel Isenberg consists of six key domains: (1) conducive policy, (2) markets, (3) capital, (4) human skills, (5) culture,

and (6) supports. All listed domains are equivalent and “interacting in highly complex and specific ways” (Isenberg, 2011) – see Figure 2.

Figure 2. Domains of the entrepreneurial ecosystem by D.Isenberg



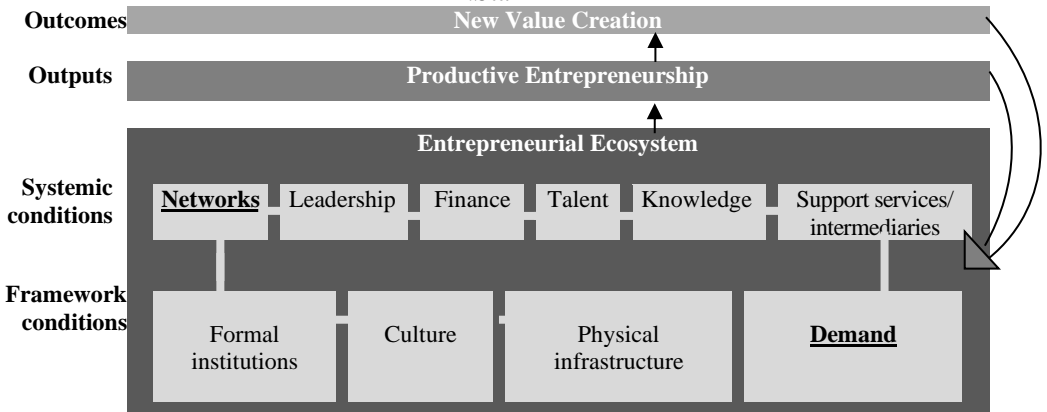
Source: adopted by the author based on Isenberg, D. (2011)

In turn, the “markets” domain, according to Isenberg, includes such elements as the presence of early customers to help evaluate the product and service level, give first feedback and establish distribution channels, as well as entrepreneurial networks, diaspora, and multinational corporations as necessary networks for development.

Model of the Entrepreneurial System by Stam

Erik Stam (2015) proposed a synthetic model of an entrepreneurial ecosystem, which includes four ontological layers (Framework conditions, Systemic conditions, Outputs, and Outcomes) and cause-and-effect relationships of various directions, including intra-level ones. According to this model, demand in the domestic market is one of the elements of the entrepreneurial ecosystem that forms the framework conditions for its functioning. At the same time, networks of enterprises are part of the systemic conditions of the entrepreneurial ecosystem and provide an information flow that allows for the efficient distribution of labor and capital (Figure 3).

Figure 3. Key elements, outputs, and outcomes of the entrepreneurial ecosystem by E.Stam



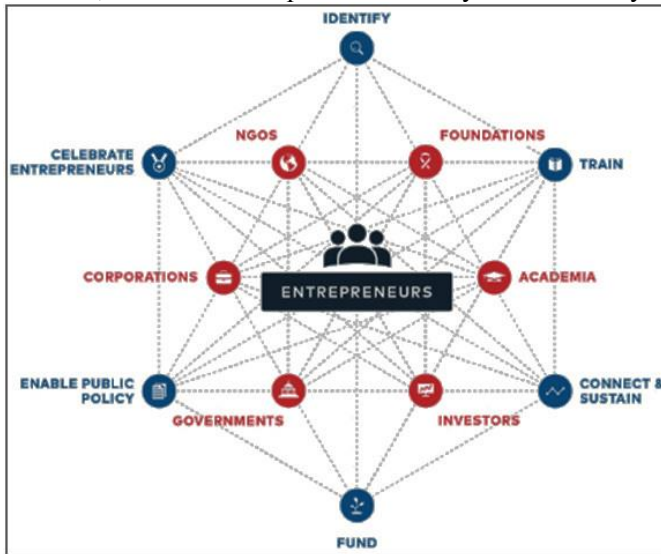
Source: adopted by the author based on Stam, E. (2015)

Later, in collaboration with A. Van de Ven, Stam modified his entrepreneurial ecosystem model. He retained the same ten basic elements of the entrepreneurial ecosystem but changed their grouping into two levels: “Institutional arrangements” (Networks, Culture, and Formal institutions) and “Resource endowments” (Demand and the remaining six elements) (Stam & Van de Ven, 2021).

Model of the Entrepreneurial System ‘Six+Six’ by Koltai

The ‘Six+Six’ model of Steven R. Koltai is based on the mindset that businesses grow when multiple sectors and actors consciously work together to create an enabling environment for entrepreneurship (Koltai & Muspatt, 2016). The six areas of entrepreneurship development work are key pillars of a strong ecosystem and include: ‘identify’ (to discover new entrepreneurs or new business ideas); ‘train’ (educational resources in different forms); ‘connect and sustain’ (connection to the business network); ‘fund’ (all types of financing for all stages of a venture); ‘enable’ (enabling legal, fiscal, and regulatory systems); ‘celebrate’ (entrepreneurship must be celebrated as a desirable and viable career path in society). And six types of actors should participate in their implementation: non-governmental organizations, corporations, foundations, government, academic institutions, and investors (Figure 4).

Figure 4. The ‘Six + Six’ Entrepreneurial Ecosystem Model by S.Koltai



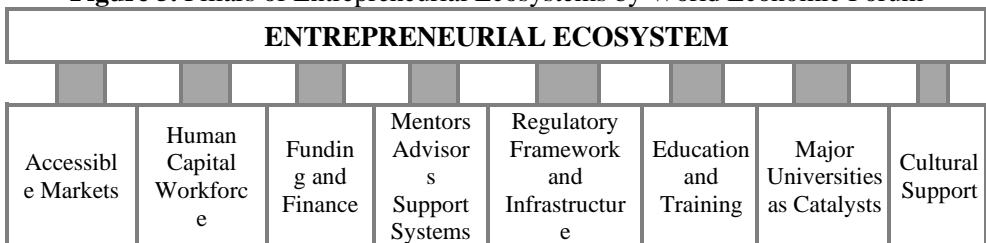
Source: Koltai S.R. & Muspatt M. (2016)

According to this model, the role of markets is to create conditions for the emergence of new business ideas, sustain enterprises, and network entrepreneurs with the support of large corporations, investors, and other actors.

Entrepreneurial System model by World Economic Forum

The report of the World Economic Forum (2013) proposes an entrepreneurial ecosystem model consisting of the eight pillars considered to make up an ecosystem (Figure 5). The first one is “Accessible Markets”.

Figure 5. Pillars of Entrepreneurial Ecosystems by World Economic Forum



Source: World Economic Forum (2013)

In this model, the constituent elements of accessible markets are the Domestic Market and Foreign Market, each of which includes (i) Large companies as customers; (ii) Small/medium companies as customers; and (iii) Governments as customers.

Entrepreneurial System model by Aspen Institute

In practical guidelines for assessing the entrepreneurial ecosystem (“Entrepreneurial Ecosystem Diagnostic Toolkit”), researchers from the Aspen Network of Development Entrepreneurs identified eight domains, and the key actors associated with each of them. At the same time, these domains affect the growth of entrepreneurship in different ways. They were placed on a spectrum, ranging from direct influence, partially direct influence, and indirect influence (Table 1).

Table 1. Domains of Entrepreneurial Ecosystem by Aspen Network of Development Entrepreneurs

Direct		Partially Direct					Indirect
Finance	Support	Policy	<u>Markets</u>	Human Capital	Infrastructure	Research & Development	Culture
Banks	Incubators	National Government	Domestic Corporations	Universities	Electricity providers	Public Research Centers and Laboratories	Media
Venture Capital	Accelerators	State Government	International Corporations	Technical Training Institutes	Transport providers	Private Research Centers and Laboratories	Government
Angel Investors	Industry Associations / Networks	Local Government	Consumers	High Schools	Communications (Mobile, internet)		Schools
Foundations	Legal services		Distribution Networks	Community Colleges	Other utility providers (gas, water)		Professional Associations
Microfinance Institutions	Accounting Services		Retail Networks				Social Organization
Public Capital Markets	Technical Experts / Mentors		Marketing Networks				
Development Finance Institutions	Credit Rating Agencies						
Government							

Source: adopted by the author based on Aspen Network of Development Entrepreneurs (2013)

Markets, according to the Aspen Network of Development Entrepreneurs, have a partially direct influence on the growth of entrepreneurship and include contributions from domestic and international corporations, consumers, distribution networks, as well as retail and marketing networks.

Thus, the analysis of the main models of the entrepreneurial ecosystem showed that markets (available markets) are one of the main components without which it is impossible to develop business in the region. Mandatory indicators that characterize this component include (i) the presence of a sufficient number of enterprises (a special role belongs to large corporations), (ii) the presence of consumers, including early customers, and (iii) entrepreneurial networks.

Assessment of the “Markets” component within the entrepreneurial ecosystem of the Republic of Moldova

As part of the applied scientific project “Multidimensional assessment and development of the entrepreneurial ecosystem at the national and regional level in order to boost the SME sector in the Republic of Moldova”, implemented at the National Institute for Economic Research (www.ince.md) in June-October 2022, a survey of entrepreneurs has been carried out to assess the factors of the entrepreneurial ecosystem, including for each of its components. In total, 204 enterprises from 25 districts of the Republic of Moldova participated in the survey. Table 2 presents the main characteristics of the sample.

Table 2. Characteristics of the enterprises in the sample

Indicator	Values	Share, %
Size	Micro (1-9 pers.)	66.7
	Small (10-49 pers.)	25.0
	Medium (50-249 pers.)	5.9
	Large (250 and more pers.)	2.5
Type of activity	Agriculture	10.9
	Industry	15.4
	Trade	25.4
	Services	45.8
	Construction	2.5
Location area	Urban area	73.0
	Rural area	27.0
The period of existence of the enterprise	<1 year	1.5
	1-2 years	10.3
	3-5 years	19.1
	>=6 years	69.1

Source: elaborated by the author based on the entrepreneurs’ survey

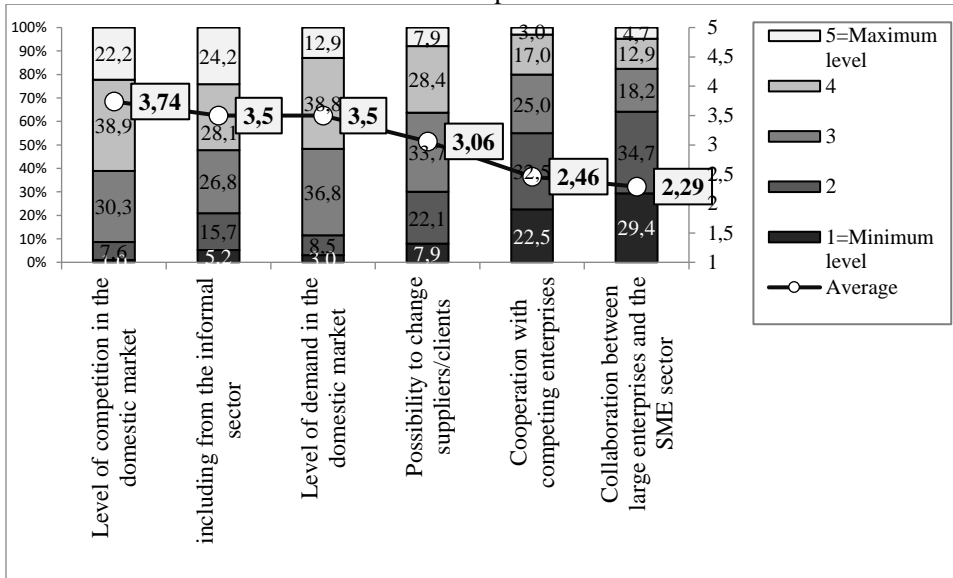
The assessment of the entrepreneurial ecosystem of the Republic of Moldova was aimed at achieving two goals. First of all, such an analysis serves to determine the nature and characteristics of the entrepreneurial ecosystem in the country. In addition, the results of the entrepreneurial ecosystem assessment reveal the enabling factors and barriers to the development of entrepreneurship. The data obtained during the assessment can serve as a good basis for revising the regulatory framework governing entrepreneurship.

The survey used a 5-point Likert scale: entrepreneurs were asked to evaluate each indicator of the Markets component, from “1” (the most negative value) to “5” (the most positive value).

Describing market opportunities in Moldova, entrepreneurs gave the highest rating to the level of competition in the domestic market (61.1% of respondents gave the maximum score of 5 or 4; the average score was 3.74) (Figure 6). While for individual

entrepreneurs, a high level of competition in the domestic market can be considered an obstacle, a challenge for business development, from the point of view of ecosystem development, this is certainly the key to the successful development of entrepreneurship in the region and the economy as a whole. A characteristic feature of the market of the Republic of Moldova, according to entrepreneurs, is a fairly high level of competition from the informal sector, partly represented by the shadow economy.

Figure 6. Assessment of indicators characterizing the market opportunities of an enterprise



Source: elaborated by the author based on the entrepreneurs' survey

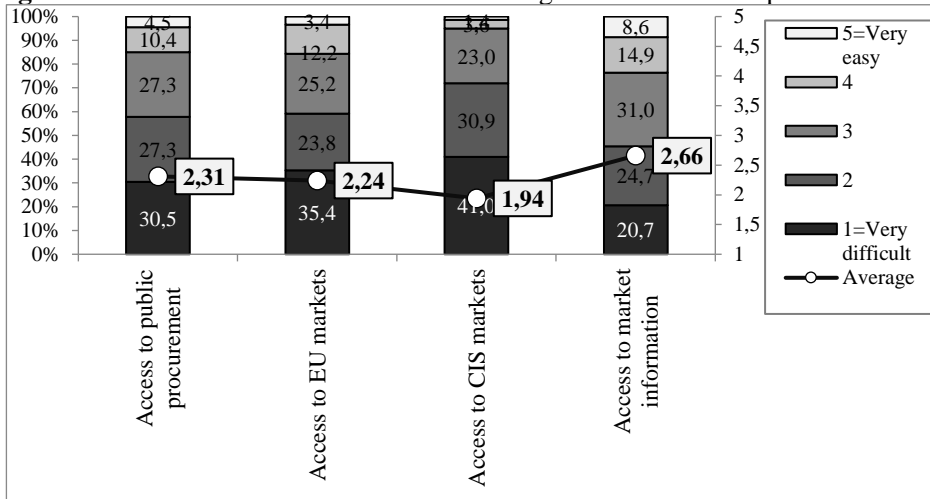
The level of demand in the domestic market is also rated quite high by entrepreneurs: 12.9% of respondents gave the maximum rating, 38.8% - scored "4", and the average score is 3.5. Accordingly, entrepreneurs see the existence of the possibility of replacing suppliers/customers, although the assessment of this indicator is closest to the average (3.06).

Unfortunately, networks between enterprises, cooperation practices are not sufficiently developed in the entrepreneurial ecosystem of the Republic of Moldova. Thus, in terms of cooperation with competing enterprises, negative assessments prevail: 55.0% of the interviewed entrepreneurs rated "1" or "2"; the average score was 2.46. Cooperation between large enterprises and small and medium-sized enterprises (SMEs) is, according to entrepreneurs, the least developed in Moldova (64.1% of negative assessments, average score of 2.29), although the potential for effective interaction between enterprises of various sizes exists in the areas of production, marketing, access to finance, staff training and consulting, etc. (Figure 6).

The access of Moldovan enterprises to foreign sales markets is quite limited.

According to entrepreneurs, access to the markets of the CIS countries is currently the most difficult (71.9% of respondents rated this indicator as “1” or “2”, the average score is 1.94) (Figure 7). The main reason may be the military conflict in the region, as well as the pronounced pro-European course of the country.

Figure 7. Assessment of indicators characterizing the access of enterprises to markets



Source: elaborated by the author based on the entrepreneurs’ survey

Also, 59.2% of the interviewed entrepreneurs find it difficult to access the markets of the European Union (average score of 2.24).

Access to public procurement by enterprises, especially those belonging to the SME sector, is significantly difficult (according to 57.8% of respondents, average score of 2.31). The state needs to create opportunities for participation in tenders of the widest possible range of potential bidders, including small and medium-sized enterprises.

In terms of the availability of information on sales markets, negative assessments of entrepreneurs exceed positive ones (45.4% compared to 23.5%; the average score is 2.66). At the same time, almost a third of respondents (31.0%) rated this indicator as neutral (Figure 7).

Conclusions

As the analysis of entrepreneurial ecosystem models has shown, markets are one of the main components. To characterize and evaluate this component, different indicators can be used, which can be divided into three main groups: (i) the presence of a sufficient number of enterprises (large corporations play a special role), (ii) the presence of consumers, including early customers, (iii) entrepreneurial networks.

The assessment of the market component in the Republic of Moldova carried out based on a survey of entrepreneurs, showed an excess of negative evaluations (scores) over positive ones.

The market opportunities of enterprises are characterized by a fairly high level of competition in the domestic market, including from the informal sector, as well as a relatively high level of demand for goods/services in the domestic market. However, the practice of cooperation with other enterprises is still not sufficiently developed, in particular, cooperation between large enterprises and the SME sector is at a minimum level.

The market access factor was assessed negatively by the majority of entrepreneurs, especially since access to both the CIS markets and the EU markets is particularly difficult at present.

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TRENDS IN FOOD CONSUMPTION IN EUROPE

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Olena Bokiyy²

Summary: The purpose of the article was to analyze the trends in the provision of European countries with basic types of food and their relationship with the level of economic development of countries. Based on the proposed approaches, the differences in the consumption of the main food groups in the countries under study and the reasons that cause them are determined. The macroeconomic indicators of the five countries and the average per capita consumption of the main food were compared. Food consumption depends on the level of socio-economic development and historical and cultural traditions of countries. An increase in the per capita consumption of poultry meat and various trends in the consumption of dairy products are predicted. For the growth of food consumption, it is necessary to ensure uninterrupted logistics of production and supply of products, the introduction of innovative technologies.

Keywords: food consumption, food security, macroeconomic indicators, consumption forecasts

JEL classification: D12; E20; E27; F14

Introduction

Currently, the problem of food supply and food security is relevant for all countries of the world community, especially in the context of crises and modern challenges - the coronavirus pandemic, local and international conflicts. Despite the fact that the world produces enough food, according to the FAO, more than 800 million people are in a state of chronic hunger (UN Report, FAO, 2022). For European countries with a high and medium level of economic development, the tasks of rational distribution of food resources within the country and the provision of food assistance to needy countries do not lose their relevance. On the world agenda is the implementation of 17 sustainable development goals until 2030, which include the eradication of poverty and hunger, responsible production and consumption, and the achievement of food security in the world. The food and humanitarian situation in the world was sharply aggravated by the armed aggression of the Russian Federation in Ukraine, domestic and international food supply chains were disrupted. The countries of the Middle East and the African continent – Ethiopia, Yemen, Somalia, Afghanistan, etc. – were on the verge of starvation. 12 food ships were sent (Oksana Maloletkova, 2022). At the same time, it is necessary to take into account the current trends in food consumption, taking into

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account the liberalization of trade. Given the above, the issues of assessment and comparative analysis of the level of food security are timely and relevant.

1. Literature Review

The research of many scientists is devoted to the study of the problem of food consumption. A. Marrero, E. Anderson et al. (Abrania Marrero, Emma Anderson, Camila de la Vega, Vanessa Beltran, Sebastien Haneuse, Christopher Golden, Josiemer Mattei, 2022) studied modern patterns of food consumption in the Caribbean. Scientists have identified food groups that minimize environmental impact. These foods included legumes, cereals and vegetables. Products contain enough protein. Meats consume 7.5-12.7% of the diet.

H. N. J. Schifferstein, P. A. M. Oude Ophuis (Hendrik N. J. Schifferstein, Peter A. M. Oude Ophuis, 1998) examined the trends in the consumption of organic products that are associated with health and are relevant to this day. They proved that the consumption of organic products for many groups of the population is becoming a way of life and is increasingly spreading. A. E. Ozen, A. Pons, J. A. Tur (Asli E. Ozen, Antoni Pons, Josep A. Tur, 2012) prepared a systematic review of the consumption of functional foods by country, gender and age of the participants. Scientists came to the bout the diversity of the consumer set of functional food.

Yu. Li, V. Filimonau, L. Wang, S. Cheng (Yunyun Li, Viachaslau Filimonau, Ling-en Wang, Shengkui Cheng, 2022) assessed the persistence of food consumption by households in and outside of China. The researchers have developed a system that spans four dimensions. These are food, environment, economy and socio-culture.

T. Tolhurst, E. Princehorn et al (Tara Tolhurst, Emily Princehorn, Deb Loxton, Gita Mishra, Karen Mate, Julie Byles, 2022) investigated the relationship between the COVID 19 pandemic and food and drink consumption among women of different ages as part of an Australian long-term study. Scientists have found a link between the age of women and the consumption of food and drink, especially during the quarantine period.

H. Jia-qi and A. Gerrit et al (Huang Jia-qi, Antonides Gerrit, Christian H. Kuhlitz, Nie Feng-ying, 2021) reviewed the budget and accounting for the consumption of food produced by households themselves. The researchers concluded that the market price does not significantly affect the consumption of flour, potatoes and pork. S. Han, Y. Lee, (Seungwoo Han, Yookyung Lee, 2022) proved that the consumption of organic products is influenced by lifestyle, income and level of education.

J.C. Taylor, M. Allman-Farinelli et al. (Jennifer C. Taylor, Margaret Allman-Farinelli, Juliana Chen, Julia M. Gauglitz, Dina Hamideh, Marta M. Jankowska, Abigail J. Johnson, Anna Rangan, Donna Spruijt-Metz, Jiue-An Yang, Eric Hekler, 2022) substantiated food intake was motivated by various goals and offered a theoretical justification for the structure of the consumption process. At the same time, food consumption issues, especially in the context of the level of development of countries, require more in-depth research. Prupose of the wok – to investigate the trends in the provision of European countries with basic types of food and their relationship with the level of economic development of countries.

2. Data sources and methods used

The authors used the methods of system generalization, correlation-regression analysis and forecasting, comparative. The volumes of consumption of the main food groups were compared and the macroeconomic indicators of five European countries were assessed. The database of the study is based on the materials of FAO, Eurostat, World Bank, State Statistics Service of Ukraine, developments of the world's leading scientists.

3. Results and discussions

When forming food policy, it is important to take into account the peculiarities of food consumption in countries that are geographically close, but have different national traditions, consumption culture and level of economic development. On the example of neighboring countries, the features of consumption of the main products of the food basket – meat, dairy and cereal products (Table 1) are considered.

Table 1. Consumption of major food groups, 2020

Products	Ukraine	Moldova	Romania	Poland	Germany	Sample average	Ratio of the highest and lowest volumes of consumption, times
Consumption per person in 2020, kg							
Wheat and processed products	101,1	101,6	129	101,3	64,1	99,4	2,0
<i>% of average</i>	<i>101,7</i>	<i>102,2</i>	<i>129,8</i>	<i>101,9</i>	<i>64,5</i>		
Pork	16,7	19,2	34,5	55	44	33,9	3,3
<i>% of average</i>	<i>49,3</i>	<i>56,6</i>	<i>101,8</i>	<i>162,2</i>	<i>129,8</i>		
Poultry meat	24,9	17,2	23,9	32,9	18,3	23,4	1,4
<i>% of average</i>	<i>106,4</i>	<i>73,5</i>	<i>102,1</i>	<i>140,6</i>	<i>78,2</i>		
Dairy products (except butter)	164,2	73,5	213,3	175,7	208,5	167,0	2,9
<i>% of average</i>	<i>98,3</i>	<i>44,0</i>	<i>127,7</i>	<i>105,2</i>	<i>124,9</i>		
Grapes and processed products (except wine)	4,6	22,3	24,6	3,5	14,1	13,8	7,0
<i>% of average</i>	<i>33,3</i>	<i>161,6</i>	<i>178,3</i>	<i>25,4</i>	<i>102,2</i>		

Source: Formed by the authors based on the data of FAO (2020), State Statistics Service of Ukraine (2020)

The data of FAO food balance sheets are taken as a basis, which may not always coincide with the data of national statistical services, but have comparable values for comparison. Wheat and its derivatives were consumed the most in Romania, 30% ahead of the sample average. Ukraine, Moldova and Poland showed consumption trends at the level of 101.1 - 101.6 kg per capita per year.

Pork is consumed more by residents of Poland and Germany, poultry meat - by Poland and Ukraine. Thanks to the availability of cheap raw materials, Polish residents consumed 62% more pork and 41% more poultry meat than the average for the sample of countries. Dairy products are a priority among the population of Romania and Germany. Romanian residents consumed 24.9% more dairy products (excluding butter) than the sample average. In terms of per capita consumption of grapes and its products, Moldova is second only to Romania and exceeds the average by 61.6%. Thus, for the studied countries and indicators, the largest variation in the consumption of basic types of food was recorded for grapes and processed products (except wine) - from 33.3% to 178.3% in relation to the average value depending on the country, as well as pork meat (from 49.3% to 162.2%, respectively). The indicator of a high ratio of the upper and lower levels of consumption of grapes and products of its processing is due to the availability of raw materials, historical and cultural traditions of product consumption in Ukraine and Moldova.

On the dynamics of consumption of basic types of food in 2019-2020. affected by the 2020 pandemic and, accordingly, COVID restrictions (Table 2). The most vulnerable to external negative factors was the consumption of grapes and products of its processing (except wine) in Moldova and Ukraine, as well as wheat and products of its processing (in all countries except Ukraine).

Table 2. Dynamics of consumption of main types of food in 2019-2020,%

Products	Change in indicator in 2020 compared to 2019, %				
	Ukraine	Moldova	Romania	Poland	Germany
Wheat and processed products	8,0	-5,5	-1,9	-4,3	-12,9
Pork	-3,7	11,1	-4,3	1,3	-5,4
Poultry meat	-6,9	3,3	1,2	8,0	6,0
Dairy products (except butter)	1,3	-5,8	1,7	2,0	1,4
Grapes and processed products (except wine)	-22,3	-60,2	5,1	5,8	1,6

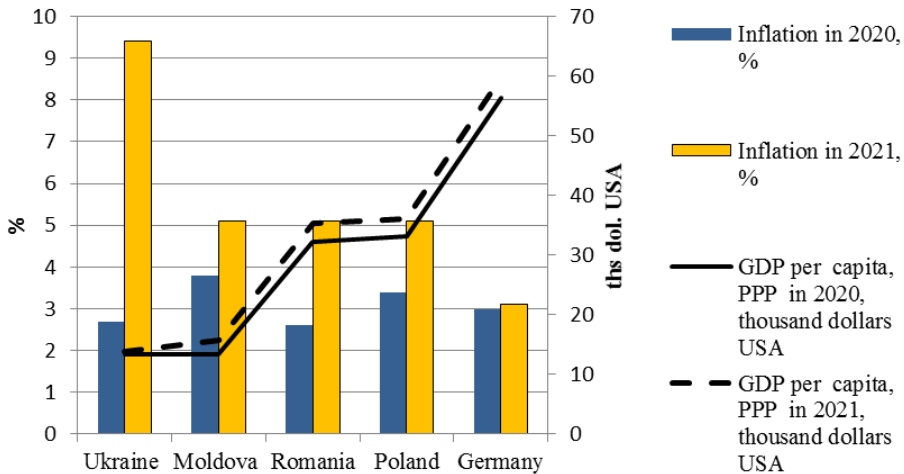
Source: Formed by the authors based on the data of FAO (2020), State Statistics Service of Ukraine (2020)

In Moldova and Poland, there was an increase in the consumption of pork and poultry, in Ukraine – wheat and its products.

To understand the essence of the processes, it is important to compare the economic development indicators of the countries under study. The dynamics of macroeconomic indicators in 2020 demonstrates the outstripping growth of the defining indicator – GDP at purchasing power parity and minimum inflation in the most developed country – Germany (Fig. 1). Inflation rates were highest in 2020 in Moldova and Poland.

At the same time, indicators of consumption of basic types of food per capita depend not only on the level of development of countries, but also on national traditions, historical experience, and geographical location.

Figure 1. Comparison of the main indicators of macroeconomic development in 2020-2021



Source: Formed by the authors based on the data of Eurostat (2020), World Bank (2021)

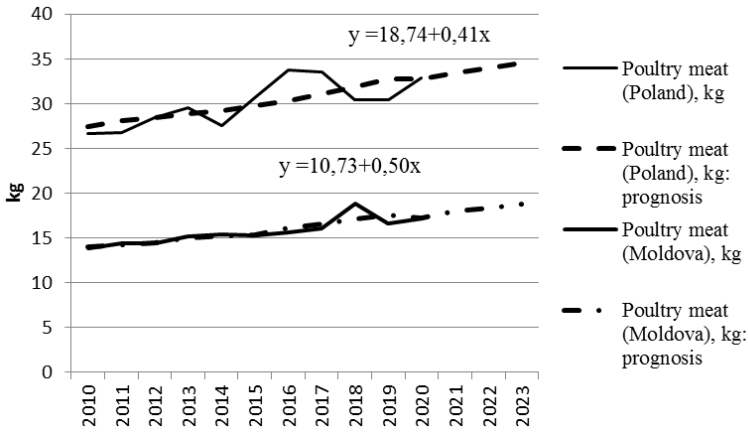
Developed countries (for example, Germany) are characterized by a high level of consumption of more expensive types of food and stable macroeconomic indicators.

Based on the dynamics of consumption (sales) of food per capita (according to FAO balance sheets), from 2010 to 2020, in Ukraine, the average per capita consumption of pork and poultry meat increased by 4 and 5%, respectively, in Moldova – by 26% and 25%. In Poland, the consumption of dairy products, pork and poultry increased (by 15%, 4 and 24%), in Germany - dairy products and poultry meat (by 43% and 6%). At the same time, consumption of dairy products decreased in Moldova and Ukraine, mainly

due to rising prices. Food consumption in European countries is changing at different rates.

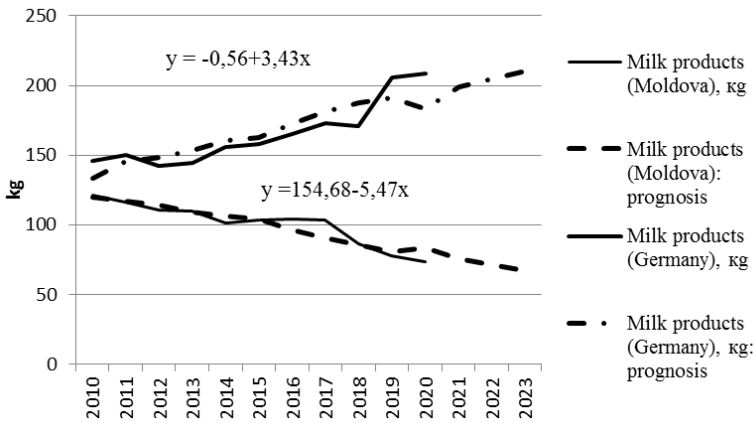
Per capita consumption in most countries depends on the standard of living indicator – GDP at purchasing power parity (GDP at PPP), which is measured in international dollars. Correlation equations and a forecast of the dynamics of average per capita consumption, using the example of poultry meat, show different trends (Fig. 2; 3).

Figure 2. Dynamics and forecast of per capita consumption of poultry meat, kg



Source: Formed by the authors based on the data of FAO

Figure 3. Dynamics and forecast of per capita consumption of dairy products, kg



Source: Formed by the authors based on the data of FAO (2020)

Based on the presented forecasts and current trends, the average per capita consumption of poultry meat in Poland will increase by 5% by 2023 compared to 2020,

in Moldova - by 9%; consumption of dairy products in Moldova will decrease by 8%, while in Germany it will increase by 1%.

Conclusion

Per capita food consumption in the world has mainly increased over the past decade and depends on socio-economic development, historical and cultural traditions. For the studied countries, the consumption of pork meat and dairy products differed by more than 2 times, poultry meat is consumed more stably. Grapes and their products are consumed more in Romania and Moldova. An increase in the per capita consumption of poultry meat and various trends in the consumption of dairy products are predicted. In order to increase the average per capita food consumption and help fight hunger in needy regions, it is necessary to ensure continuous food supply logistics, introduce innovative resource-saving technologies for the production, storage and transportation of products, and achieve a stable socio-political situation in the regions.

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