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Editors

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Contents

Editorial Note	9
Alina Cristina NICULESCU, Cristi FRENȚ <i>Digital Technologies and Their Use for the Development of Cultural Heritage in Europe and Romania: Advantages and Disadvantages</i>	11
Mariana BĂLAN, Carmen UZLĂU <i>Functional Illiteracy: Barrier to the Sustainable Development of Romania – Republic of Moldova Cross-Border Area</i>	29
Alina Georgeta AILINĂ <i>The Impact of Fiscal Decentralization on Selected Macroeconomic Variables at the County Level in Romania from 1999 to 2023</i>	44
Stela CIOBU, Domnica TCACI <i>Development of Bank Payment Systems in the Digital Economy of the Republic of Moldova</i>	61
Sebastian DOBOȘ <i>A Review of Economic Data on the Capitalization of Agricultural Goods from Small-Scale Agricultural Holdings in the Kingdom of Romania after 1918</i>	82
Monica Maria COROȘ, Cristina Ioana BALINT <i>Traditional Architecture, a Triggering Factor for Rural Tourism Development in Romania</i>	119
Buse KEKEÇ, Gül ERKOL BAYRAM <i>Gastronomy Museums as an Element Bringing Forgotten Values to Light: A Proposal for Sinop Province</i>	136
Nur ÇELİK ILAL, Işıl ARIKAN SALTİK <i>Evaluation of the Rural Tourism Potential of a Taurus Highland: The Case of Ağla, Köyceğiz</i>	154

Defne EĞİRMEN, Buse KEKEÇ, Ali Turan BAYRAM, Gül ERKOL
BAYRAM

*A Study on Measuring Tourist Consumers' Intentions to Participate in
Unusual Types of Tourism*

170

Hatice SARI GÖK

Tourism Trends of Millennial Tourists

182

Editorial Note

The *Economy and Contemporary Society* journal, edited by the Gheorghe Zane Institute for Economic and Social Research, Romanian Academy, Iași Branch, and publish under the aegis of the Publishing House of the Romanian Academy, continues and elevates the initiative launched over three decades ago with the founding of the *Yearbook of the “Gh. Zane” Center of Economic Research* of Iași in 1992.

The new series of the journal, inaugurated with this volume, aims to open new horizons in national, regional, and global economic research, by leveraging multidisciplinary and interdisciplinary perspectives within the fields of economics and social sciences. These interconnected approaches are increasingly essential, as an integrated epistemic framework is becoming an absolute imperative in academic research.

Volume 29 goes beyond Romania's borders thematically, bringing together studies that address socio-economic realities specific to Europe as well as other continents. The topics covered are broad and highly relevant, with a focus on digital technologies, education, taxation, banking system, interwar agriculture, and tourism.

Respecting the tradition established by the former *Yearbook*, the new series will feature original research conducted in diverse and complex ways, including theoretical and empirical analyses, methodological proposals, literature reviews, analytical essays, and book reviews.

The journal is exclusively published online in an open-access format, with articles undergoing a rigorous double-blind peer review process. The quality standard is ensured through the involvement of reviewers and the contribution of the Advisory Board, composed of distinguished figures from academic research and higher education.

Economy and Contemporary Society aspires to become a platform for the rapid and wide dissemination of both original theoretical contributions and practical insights from all areas of economics and social sciences.

As no human creation arises *ex nihilo*, we express our gratitude to the members of the previous Editorial Boards, whose vision and dedication ensured not only the journal's persistence over time but also the maintenance of a high scientific standard. Their efforts enable the current editorial team to pursue the increased visibility and international relevance we aim for today, while strictly adhering to the rigor required of an academic publication.

We also extend our thanks to all the authors whose contributions have made the revival of the former *Yearbook* of the Gheorghe Zane Institute possible. We hope that this new series will spark interest among all those dedicated to understanding economic and social phenomena from various parts of the world.



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Digital Technologies and Their Use for the Development of Cultural Heritage in Europe and Romania: Advantages and Disadvantages

Alina Cristina NICULESCU¹, Cristi FRENȚ²

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ABSTRACT

The Internet and the digital applications are now part of our daily lives. Digital technologies have become essential to work, to learn, to socialize, to be able to access various products and services (for business, for entertainment, for cultural tourism, for education, for health, etc.). The evolution of new technologies has generated significant changes in all fields, which has led to an increasing awareness of the importance of the role that technological progress has in today's economy. Similarly, technological developments have opened up new possibilities for the digitization of cultural heritage, especially for the purpose of its conservation, restoration, research, but also for the purpose of expanding the online access and for its reuse by tourists. In response to the current digital challenge, this article aims to debate the issue of the use of digital technologies in cultural tourism (at European and national level), by presenting and analyzing some recent statistics in this field. At the same time, the ways in which digital tools can contribute or not to the development of cultural heritage will be researched, in order to identify the advantages and disadvantages that may arise from the online exposure of cultural resources. In this way, the data presented will capture both the positive characteristics, but will highlight, at the same time, the existing vulnerabilities and risks,

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This article is derived from the paper with the same title presented orally at the 25th International Conference on Tourism and Rural Space in National and International Context - TARS, held in Vatra Dornei, Romania, from May 25–27, 2023. It was accepted for publication in the TARS 2023 Proceedings on August 9, 2023.

1. Introduction

At European level, the digitisation of the cultural heritage has always been a concern whose main focus was to optimise the benefits of information technologies, so that would generate economic growth, would lead to job creation and improve the people's quality of life. The digitisation and preservation of Europe's cultural resources (including various prints, books, magazines, journals, newspapers, photographs, museum exhibits, documents in archives, sound files and audiovisual materials, monuments, and archaeological sites) are actions that have been consistently supported and advised in the recent years by the European Parliament and the European Council.

Currently, the public is accessing digitized material at an unprecedented scale, in the context of the emergence of new digital devices and techniques. The cultural production has also faced important changes over recent years due to the emergence of new technologies, as well as to the new digital cultural consumption behaviours of the tourists in their role as consumers.

The fast-paced evolution of technology that has also been manifested in the field of cultural tourism has motivated us to elaborate this paper, in which we aim, apart from doing an analysis of statistics on the use of technologies at both European and national level, to identify the main advantages and disadvantages of using digital media in the field of cultural tourism.

2. Literature Review

In order to clarify the meaning of the concepts that will be used throughout the paper and to give them theoretical relevance, we will briefly list and characterize some of the terms that will be used in this paper and that we have found mentioned in most of the documents that we reviewed, namely:

- digitalisation – represents the set of technical means, tools, and procedures that make it possible to use data that are in a digital format (Ceobanu et al., 2022, p. 9). Rus (2020, p. 132) noted the differences between “digitisation” and “digitalisation”, explaining that “digitisation” refers to the internal optimization of processes (databases, work automation, reduction of operating costs), while “digitalisation” means the strategy or process that goes beyond the simple implementation of technology and that is aimed at achieving a deeper, substantive change of the core of the entire activity and its evolution over time. Khan, quoted by Crăciun (2016, p. 44)

argued that digitalisation refers to the process of change started with digitisation in different fields of activity, specifying also that the two terms (“digitisation” and “digitalisation”) are used interchangeably in different studies/documents;

- digital preservation – term referring to a specific set of activities that need to be undertaken to ensure that digital objects can be located, made available, used, and understood in the future (European Commission, 2021);

- Information and Communication Technology (ICT) – term referring to all the equipment necessary to receive, process and communicate / send information;

- virtual – The online Cambridge Dictionary (2023) provides an explanation for this term that is close to the scope of this paper (in the context of digital technologies), namely: “created by computer technology and appearing to exist but not existing in the physical world”.

3. Methodology

The Internet has become a key element in people's daily lives, due to the advantages it brings along: allowing users to send e-mails, to make transactions, to share one's content in the online environment, the fact that it is relatively easily accessible, etc. In order to analyse the magnitude of this phenomenon, our research will discuss its implications from a general level to a specific one. Therefore, we will address the issue at European level, while also inlaying remarks on the national context in the general outlook.

In this regard, we have at our disposal Eurostat statistics, which carry out surveys annually in the Member States of the European Union, collecting and then analysing data and information on the use of Information and Communication Technologies (ICT), the Internet, and the e-skills related to households and individuals.

In Romania, the National Institute of Statistics also produces various press releases and an annual survey on the population's access to ICT resources. The main objective of this survey is to provide information on the population's access to different communication technologies, as well as Internet access through any type of device (personal computers, laptops, tablets, including mobile phones or smartphones). At the same time, this survey aims to highlight the degree of Internet use, the frequency, and the purposes of using information technology, the scale at which the public authorities' websites are accessed by users, the intensity of online commerce, the number of household devices connected to the Internet and the coverage of green information and communication technology (National Institute of Statistics, 2022a).

In the current paper, we will analyse and briefly present these statistics, but also the information featured in the Digital Economy and Society Index (DESI) Scoreboard for Romania, prepared by the European Commission (European Commission, 2022).

At the same time, in order to identify the main types of (positive and negative) impacts of online exposure of the public to the cultural heritage, we consulted various studies, publications, and papers on the use of digital technologies in the field of cultural tourism in Europe and Romania, in order to provide a contextual framework for our research and to be able to highlight later the main findings.

4. Results and Discussion

4.1. Statistics of the use for digital technologies at European level and in Romania

According to Eurostat, in 2022, 90% of people aged 16-74 in the European Union used the Internet in the last three months of the year (Eurostat, 2022a)³. In 2022, the share of households in the European Union that had Internet access increased to 93%, compared to 72%, in 2011. Moreover, 68% of people living in the European Union ordered or bought goods or services via the Internet for their own use in 2022 (compared to only 54%, in 2017).

In Romania, in 2022 there was an increase by 13% compared to 2017, in terms of households⁴ that are connected to the Internet, according to Eurostat (Fig. 1). The countries reporting the highest share of households that are connected to the Internet were the Netherlands, Luxembourg, and Finland (98%). Spain (96%) and Denmark (95%) were also among the European Union Member States with high rates of Internet access in households. At the opposite end, Greece (85%), Croatia (86%) and Bulgaria (87%) featured the lowest rates of household Internet access.

³ The information reported was obtained through an annual survey on ICT usage in households and by individuals; the results refer to the last three months prior to the conducting of the survey.

⁴ In statistical terms, a “household” means the group of two or more persons who usually live together, generally having family ties, and who take on chores jointly (do the housekeeping), participating, in whole or in part, in the generation of income and in spending it (according to the National Institute of Statistics).

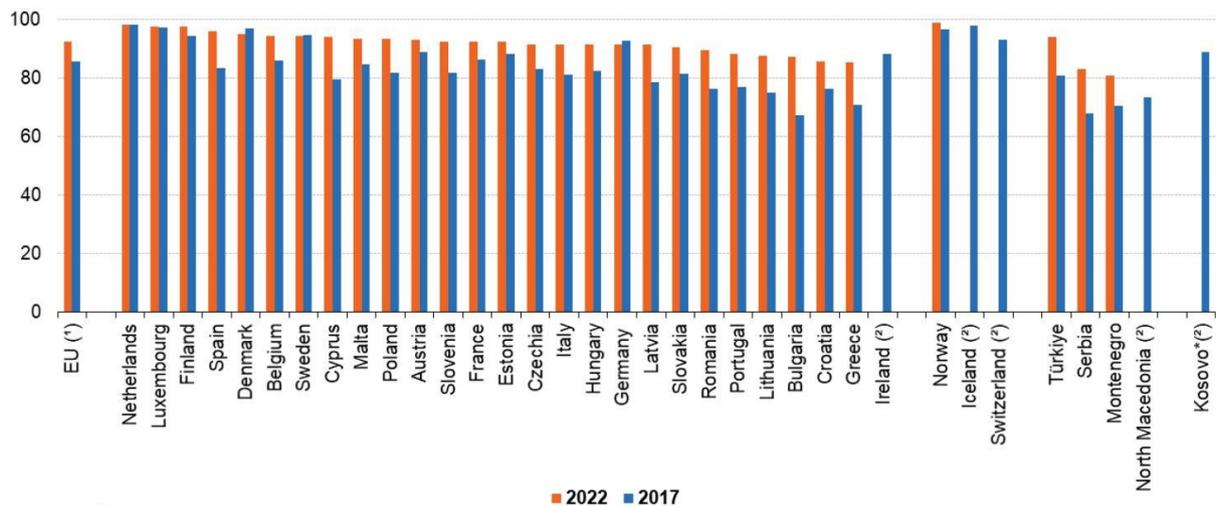


Fig. 1. Internet access in households in European Union countries - comparison between 2022 and 2017, % of all households

Source: Eurostat (2022b)

According to the National Institute of Statistics (2022b, p. 1), out of the total households in Romania, 82.1% had home Internet access in 2022, this figure featuring an increase by 1.3% compared to the previous year. The share of persons aged 16-74 who had used the Internet at least once was of 89.7% in 2022, featuring an increase by 1.1% from the figure obtained in the previous year. Among the current Internet users, 69.2% used the Internet several times a day in 2022, and 21.1% once a day or almost every day.

In Romania, according to the National Institute of Statistics, there have been increases in the number of Internet users from one year to the other. Thus, in 2022, the share of people aged 16-74 who had used the Internet at least once has reached approximately 13 million people.

The information collected by the National Institute of Statistics (2022b, p. 2) showed that, in Romania, the share of people using the Internet decreased with age. Thus, the share of people aged 16-34 who used the Internet was of 98.1%, while those aged between 55 and 74 reached 73.3%.

If we look at the Internet access statistics broken down by the residence areas of households, the urban areas in European Union countries registered a higher Internet access in households (94%), compared to rural areas (90%), according to Eurostat. Malta was the only Member State of the European Union where most households connected to the Internet came from rural areas. The urban areas of Belgium, Slovenia and Estonia registered highest household internet access compared with rural areas. In Finland, Luxembourg, Netherlands and Norway the difference was around 1 or 2 percentage points between the urban and rural areas.

For countries such as Greece and Portugal, the gap between cities and rural areas in household internet access reached 14% for each country. In Romania, the difference between urban areas (88.6%) and rural areas (73.7%) in terms of Internet access reached 14.9 percentage points in 2022.

The Eurostat survey also collected information about the purpose for which respondents used the Internet. Thus, in 2022, the share of persons in the European Union countries who took on an online course was of 16%. In the Netherlands and Finland, more than 30% of people aged 16-74 took on an online course in 2022. At the opposite end, the share of people who participated in an online course was of only 3% in Romania, and 8% in Poland and Bulgaria.

Moreover, when it came to the purpose for which respondents used the Internet in 2022, the Eurostat survey revealed that 52% of the citizens in European Union countries used it to perform health-related searches (relative to injuries, diseases, nutrition, health improvement, etc.). In Finland, the proportion of searches focusing on health-related matters reached 81% (the highest rate in the European Union). High percentages, exceeding 70%, were recorded in the Netherlands (78%), Cyprus (73%), and Denmark (71%). The citizens who least used the Internet for health-related searches were those in Romania (29%) and Germany (37%).

The share of people in the European Union countries aged 16-74 and who ordered or bought goods or services via the Internet for their own use was of 68% in 2022, which represents an increase by 14% compared to 2017. The share of people who ordered or bought goods and services via the Internet (for their own use) was the lowest in Romania (30%) and Bulgaria (23%). The countries where the Internet was most used for such activities in 2022 were Denmark and the Netherlands (with 88% of the total online purchases each). However, the largest increase in the percentage of people who ordered or bought goods or services over the Internet in 2022 compared to 2017 was observed in Hungary (+31%) and in Romania (+30%).

In Romania, in 2018 (the most recent year for which such information is available), only 12% of persons who used the Internet for various cultural and educational activities visited museums, libraries or other specialized sites, while 17% searched for information about cultural events and products. However, these figures are expected to increase in the medium and long term, as the public's digital skills level rises and the cultural consumption increases. The higher the number of visits to the websites of public cultural institutions, the greater the potential for increasing the number of physical visits (Ceobanu et al., 2022, p. 16).

Therefore, the information posted by the National Institute of Statistics confirmed that Romania has relatively good results in terms of internet connectivity.

The same resulted from the DESI Scoreboard for Romania, according to which Romania ranks on the 15th place in terms of Internet access out of the 27 countries of the European Union. However, even though the degree of connectivity to the Internet was a fair one, according to the Report for Romania published by the European Commission⁵ in 2022⁶, our country's performance in integrating digital technologies and digital public services is poor, compared to those of the other Member States of the European Union (Fig. 2).

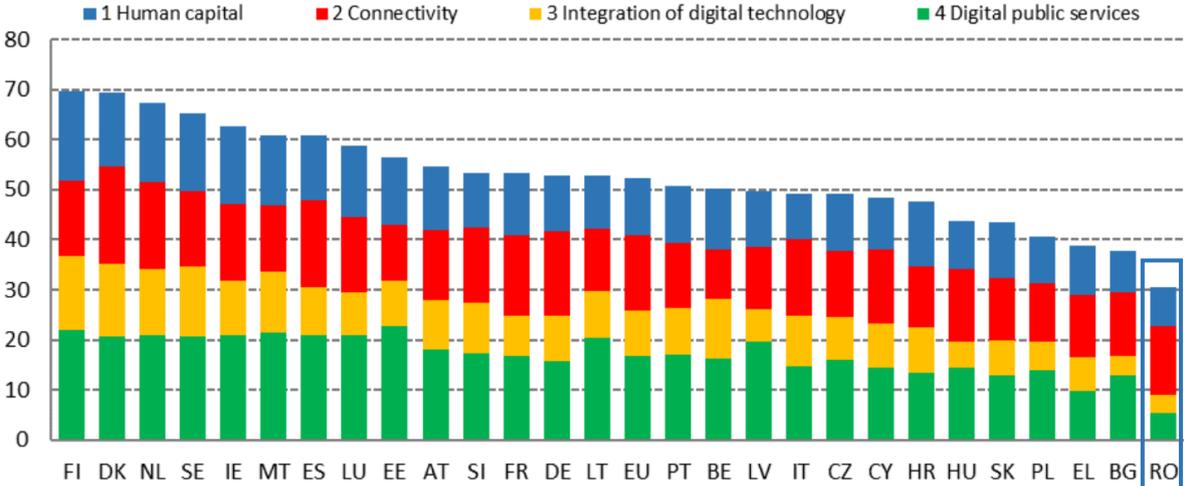


Fig. 2. Ranking of countries in the European Union in terms of the Digital Economy and Society Index (DESI) – 2022
 Source: European Commission (2022)

As can be seen in Fig. 2, Romania ranked last in the European Union in terms of digital competitiveness expressed by the Digital Economy and Society Index (DESI) in 2022, as its relative annual growth was inferior to that in other countries. The leading countries in this area (of digital competitiveness) were Finland, Denmark, the Netherlands, and Sweden.

Romania also lags compared with other countries (it scored the 27th) in terms of several indicators related to the human capital, with a very low level of basic digital skills, compared to the EU average.

According to the results of the DESI Scoreboard, Romania is facing a lack of basic digital skills among the population, registering results well below the European

⁵ The European Commission has monitored the Member States' digital progress annually (since 2014) via the Digital Economy and Society Index (DESI) Scoreboard. Each year, the DESI Scoreboard include country profiles that support Member States in identifying areas for priority action, as well as thematic chapters that provide a Europe-wide analysis in terms of crucial digital areas.

⁶ The DESI Scoreboard 2022 is mainly based on 2021 data and tracks progress in the digital field in the Member States of the European Union.

Union average in terms of basic digital skills (28% compared to 54%) and digital skills above elementary level (9% compared to 26%). 41% of people in Romania have basic skills in digital content creation, ranking below the EU average (which is 66%).

We can thus conclude that people who have access to the Internet and to the digital technologies do not automatically develop the digital skills they need (both in their professional and personal lives). This happens while the world becomes increasingly digitalised, and a certain level of digital skills is needed to attend professional and private matters.

It is also important to evoke the fact that in 2020, in its Communication entitled “Shaping Europe's Digital Future”, the European Commission highlighted that more than 90% of jobs in Europe require at least basic digital skills (European Commission, 2020). Moreover, on the labour market, the increasing digitalisation has led to an increase in demand for digital skills in recent years and is expected to continue to grow in the future (European Court of Auditors, 2021, p. 12). Consequently, having basic digital skills is becoming increasingly important for employees and they are already in high demand in many professions today. Adults who lack these basic skills will face problems both at work and in their private lives. This is an issue mainly in case of older adults who have a lower level of education and for the unemployed persons (European Court of Auditors, 2021, p. 42).

This topic was also covered in the research of Ceobanu (2021, p. 77), who argued that young people's level of digital literacy is higher than that of the older age groups, in a similar fashion to the one in which the Internet access for persons in the urban areas reaches higher values than the access that the persons in the rural areas. The author also showed that, with the COVID-19 pandemic, the pace at which people had to learn to use the Internet, a PC, or other technological and digital systems and devices has increased more than ever. For some categories of persons, this has been easier to achieve, but there are social categories for whom this period of hyper-virtualization of life has created a totally opposite effect.

Digital competences were also considered important by most of the respondents who took part in a study conducted by the National Institute for Cultural Research and Training, INCFC, in 2020 (pp. 38-39), arguing that digital skills matter mainly because the digital space/environment can be useful in all actions related to the cultural heritage (promotion, capitalization, exploitation and interpretation).

In the same study conducted by INCFC (2020), (p. 43), it is noted that digital skills/competences are considered important by cultural experts, because learning and experimenting with new techniques are beneficial activities in the cultural field,

and the digitization and the use of ICT tools facilitate the access of a larger audience to these resources.

Returning to the results presented in the DESI ranking in 2022, they also revealed some positive aspects for our country, which show that Romania maintains its leading positions in terms of the proportion of women working in ICT in the total workforce (ranking second) and in terms of the number of ICT graduates (ranking 4th).

Romania registered results well below the European Union average also in terms of all indicators that characterized digital public services, which is still a great challenge for our country. For example, the DESI scoreboard showed that, in 2022, in Romania, the availability of digital public services for citizens reached a score of only 44 (compared to the average value in the European Union of 75), while that of digital public service for businesses only reached 42 (compared to the average value in the European Union of 82).

4.2. Advantages and disadvantages of using digital technologies in the field of cultural heritage

In this section, we aim to discover what is the impact of the online exposure to the cultural tourism heritage, by presenting the advantages and disadvantages of using digital technologies. This is because today, more than ever, the cultural heritage and tourism represent two closely linked sectors, characterised by a virtual dimension, that serves as a basis for the creation of this new “digital experience”. It has been shown – throughout time – that linking tourism with heritage and culture is an approach that can do more for local economies than when they are promoted separately. For example, in Romania, in the National Recovery and Resilience Plan, the cultural field was treated and approached alongside tourism (these two areas together forming Pillar IV, component C11 – “Tourism and Culture”, with an allocated budget of 449.01 million Euros for the period 2022-2026).

4.2.1. Advantages

All over the world, the integration of digitization solutions within the tourism and cultural sectors has led to an increase in the number of tourists visiting a country's destinations, but it has also had a positive impact on the image of the destination, by facilitating and enhancing the access to tourist and cultural information.

Statistics have shown that more and more people are now turning to cyberspace to see new places and find information related to them for organizing

cross-border business meetings, for leisure and for communication purposes (Maiorescu et al., 2016, p. 303). The last decade has witnessed an increase in the number of digital projects taking place at different institutional levels and through different technological tools (Obadă, 2021, p. 221). All these aspects have led to the tourism's increasing dependence on modern technological means (Cooper, quoted in Maiorescu et al., 2016, p. 304).

In addition, the COVID-19 pandemic has fundamentally changed peoples' lives, leading to an increased interest in communicating via the Internet, as all areas – from work to leisure – have been affected by the pandemic (National Institute of Statistics, 2022, p. 14). In this new context, Beaunoyer et al., quoted in Matei (2020, p. 44), noted that digital technologies have been a driver of economic and social activities, as well as a support for leisure and social interactions.

The European Commission stated that, once translated into an electronic format, the cultural heritage can become a resource for a wide spectrum of electronic products and services, in a sector such as tourism. This advantage of digitizing the heritage items was also highlighted by Obadă (2021, p. 219), who claimed that digitization will stimulate the production of cultural goods in the first place.

Ernst and Young, quoted by INCFC (2016, p. 21), stated that the cultural and creative sectors represent the most important source of revenue of the digital economy, in a value chain where very few goods/services can be patented and where intellectual property rights are difficult to protect.

The European Commission Recommendation of 27 October 2011 on the digitisation and online accessibility of cultural materials and digital preservation states that one of the advantages of using new technologies will be ensuring the access to cultural materials: the digitisation is an important means of guaranteeing an improved access to the cultural materials and a way of making better use of them (European Commission, 2011). This way, European heritage will gain a clear profile on the Internet and the digitisation of the materials in the European cultural institutions will help them to continue to fulfil their mission of providing access to the European heritage and ensure its preservation in the digital environment.

Digitisation is an important means to an improved access to the cultural materials and a way of making better use of them. Digital technologies offer new opportunities to preserve the cultural heritage and to facilitate the access to this heritage for all categories of audience. Museums and cultural organisations adopting these technologies can offer visitors innovative experiences, allowing the remote public access to various exhibitions and to view cultural materials that are not physically on display.

Natale, quoted in Ciurea (2014, p. 73), stated that the use of digital technologies in virtual exhibitions represents a great opportunity for disadvantaged people, who have low financial means, or for the elderly people, who are faced with physical impairments, giving them the opportunity to overcome mobility barriers or time restrictions that make it harder to visit physical exhibitions.

Digital technologies, such as AR and VR (augmented reality and virtual reality), are particularly attractive to the general public who is not interested in the cultural heritage or aware of it, as they help transpose elements of the intangible or tangible cultural heritage into the interest area of the new generation, that is obsessed with modern technologies, as stated by Obadă (2021, p. 220). This is how technology alone will be sufficient to attract the audience's curiosity, to lower accessibility barriers, and will provide more opportunities for disseminating the heritage through multiple channels, thus reaching more recipients. This was also underlined by Roja (2019, p. 15), who pointed out that digitalisation seems to have removed all barriers and crossed all boundaries of time and space.

Pop and Alexa (2016, p. 29) also highlighted the advantages offered using virtual reality technologies, as the authors proclaimed that they offer a vivid, pleasant, realistic experience, and they are very useful when one wants to visualize and simulate certain environments, buildings or objects that no longer exist or that cannot be easily visited.

Muchitsch and Kradischnig, quoted in Straus et al. (2022, p. 10), identified the main positive (direct and indirect) effects of the development of cultural heritage digitalization activities, which are schematically highlighted in Fig. 3.



Fig. 3. Effects of the development of the digitisation of the cultural heritage

Source: Authors' adaptation from Straus et al. (2022)

Marty, quoted in Voloc (2019, p. 104), claimed that – in the case of museums – the digital material and resources provided to the public do not replace a physical visit, but are frequently used by visitors to complement it. The same idea was

supported by Ross and Terra (quoted in Voloc, 2019, p. 104), who claimed that a physical visit to a museum is mainly a form of leisure, while the online visit to the museum is undertaken for documentation purposes and for obtaining detailed information on the collections featured there. As a matter of fact, most authors have argued – in the publications that we reviewed – that a digital replica of an exhibit cannot replace the feelings one experiences on occasion of a cultural visit.

Discussing the same topic, without advocating in favour of virtual cultural experiences to the detriment of physical ones (because the consumption experience in a virtual space cannot replace an on-site consumption), Ceobanu et al. (2022, p. 12) underlined that the virtual access to cultural products can contribute to reducing the level of social inequalities (in rural areas, for example, where the cultural infrastructure is quite poor) and even to increasing an individual's level of culture. The authors also mentioned that the same argument applies to rare cultural goods, which are never made available in visiting spaces, museums, or libraries, in whose case the virtual area becomes a space where the audience can encounter these rare goods.

4.2.2. Disadvantages

In any area where there is progress, there are also gaps and unwanted effects. The new technologies have also created various risks and issues. We will try to identify them and to bring attention to them in this section.

Nowadays, digital technologies used for broadcasting information (including those of a tourist and cultural nature) are extremely accessible. Therefore, one of the difficulties related to the process of sharing digitized materials in the online environment is related to copyright issues, because only works belonging to the public domain can be accessed without heed to legal restrictions (Pop, 2012, p. 367).

On the same subject, Pop, quoted in Cocieru (2014, p. 365), specified that – from a legal standpoint – it is necessary to clarify who owns the copyright of the material intended for digitization and what are the legal limitations of its use after its digitization.

Cocieru (2014, p. 362) claims that the disadvantages of digitization technologies lie more with the need for a proper preservation of the digitized material in the long term, even though this does not mean that this process should be abandoned.

The digitalisation – which the European Parliament (2019, p. 2) considered to be the “fourth industrial revolution” – has had a strong impact on culture, in terms of stimulating its creative processes, generating business and consumption patterns,

and new ways of accessing cultural services and works. However, traditional practices have been disrupted and the most significant consequences have been felt particularly in the musical and in the audiovisual sectors (in terms of digital piracy).

Due to the multitude of sources found on the Internet, any Website in the public cultural sector is exposed to the risk of a low degree of user loyalty, according to Ceobanu et al. (2022, pp. 15-16). Maintaining the users' interest is not an easy task, given that, according to the same authors, “it is a proven fact that Websites have between 25 and 35 seconds to persuade the user that the information they are looking for is available and easy to access”. Therefore, in order to ensure their success against competitors, the digital interfaces in the public cultural sector should offer “experiences”, should have satisfactory aesthetics, be flexible and should be made available for use for all types of audiences.

Roja (2017, p. 5) highlighted that the ICT sector is probably the most dynamic one, globally, both in terms of number of innovations and their impact on everyday life. However, this can generate a certain disadvantage linked with the permanent progress of information technologies, because old devices end up being replaced by more efficient ones, but that cannot render the contents stored on previous devices.

Cocieru (2014, p. 362) also pointed out this disadvantage, arguing that the preserved data will be in danger of no longer being readable from older media devices on which they are stored (Cocieru, 2014, p. 51).

Other disadvantages were also identified in a study conducted by INCFE in 2020 (p. 44), which addressed the issue of the generation gap, referring to the fact that older generations (aged 50 and more) are less digitally qualified than those aged under 50. The experts interviewed for the INCFE study indicated that they should be trained in order to be able to use digital tools in an efficient and operational way. Another problem identified in this study referred to outdated mentalities and the people's refusal to see the benefits of technology and, as such, to use it in the institutions in which the respondents to the INCFE questionnaire work.

Referring to the same topic, Ceobanu (2021, p. 44) stated that the discrepancies, the segregation, and the differences between the persons who are digitally literate and those who fail to keep pace with the technological development will turn – over time – into inequalities in terms of access to the public culture.

Another undesirable effect would be an increased dependence on technology, because a technology is useful when used correctly, but it becomes harmful when misused.

5. Conclusion

The low level of digitalization, but also the relatively slow progress in this respect, have made the Romanian economy unable to take full advantage of the opportunities offered by the digital technologies. This situation is further aggravated by the very low level of digital public services made available for both citizens and businesses.

All the statistics presented above show us that at European and national level, the strategic directions and policies proposed (as recommendations) by the European Commission for the digitization of cultural heritage are not yet taken upon and are implemented only partially.

Romania's National Recovery and Resilience Plan includes measures to fully integrate the digitalisation into all dimensions captured in the Digital Economy and Society Index (DESI), namely digital skills, connectivity, business support, and digital public services. Most of these measures (reforms, investments) are managed by the Ministry of Research, Innovation and Digitalization, but other ministries and public entities are also responsible for implementing digitalization-related measures.

The cultural heritage can be “revived” via the digital technologies and the Internet. Via them, people can have new opportunities to access various cultural materials, while at the same time reaching a wider audience by harnessing new technologies. In addition, the digitization of cultural and tourist resources is also important for the smooth running of the research and innovation process in these two fields.

Because we live in a society dominated by change, new technologies and new applications are launched in a continuous and sustained way, in order to keep pace with the new “digital era”, which means that old technologies will be replaced by new ones, thus raising the dilemma and the subsequent question: “which of them will be preserved over time and which will not?”

Some authors considered new technologies as a challenge and an opportunity for cultural tourism, while others considered them as de-humanization instruments. Our opinion is that we must not let digitalization take over our lives, but we can allow it to moderately enhance our experiences (not only our cultural ones, or our tourist ones, but also those we experience in our private lives). Everything must be done in moderation, in order to maintain a balance between the real and the virtual world.

At the same time, it must be highlighted that – despite all the advantages presented in this paper – the successful implementation of digitization projects in the field of cultural tourism (especially those that will be based on virtual reality

tools) is a continuous process, which, once started, requires a continuous and sustained effort in terms of allocated time and financial resources.

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Functional Illiteracy: Barrier to the Sustainable Development of Romania – Republic of Moldova Cross-Border Area

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ABSTRACT

Amid computer science advancements, a major problem many states deal with is, paradoxically, functional illiteracy. This phenomenon accounts for socio-educational and economic problems of contemporary society that, if unsolved, in the medium and long term, can have serious effects on the future development of societies. The prevention and fight against functional illiteracy require specialized mobilization, on multiple sectors. On the PISA 2022 performance scale, the share of students with low performance in basic skills remains high, 42% for Romania and 44.3% for the Republic of Moldova (among the highest in the European Union). If the European Union is aiming to lower the functional illiteracy rate among 15-year-olds to below 15% by 2020, Romania and the Republic of Moldova are far from such an ambitious target. Both countries are aiming to lower this rate to 25% by 2030. In this context, a large part of future generations in the two countries are functionally and socially illiterate due to the lack of primary education, which will be a catastrophe for the labour market, businesses and economy in the future. We present a brief analysis of the functional illiteracy characteristics in Romania and in the Republic of Moldova among 15-year-old students. A comparative analysis of the functional illiteracy rates of students in the two countries, considering the PISA test in the period 2006–2022, was conducted, as well as of this phenomenon's effects on the future development of these countries, in general, and on the cross-border area, in particular.

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1. Introduction

The world is currently under constant change, becoming more complex, interconnected and fluid. In this context, education must rise to a level that can provide graduates and society with maximum opportunities and options.

The level and quality of education are affected by the degree reached by functional illiteracy and by the formulation/reformulation of reforms/policies based on scientific data on education, that should respond to the challenges identified at national and international level, in the sense of transfer of competences, adapted to the needs of today's and tomorrow's society.

One of the largest studies in the world on the state of education worldwide (in terms of student performance in Science, Reading and Mathematics tests) is also the OECD Program for International Student Assessment: PISA. A comprehensive set of indicators are collected in this program, for comparison and analysis, covering student performance, attitudes toward learning, school environment and resources and many other aspects of school life.

The reports drafted by the Organization for Economic Cooperation and Development (OECD) in 2022 on the state of education worldwide in terms of student performance in the Science tests (as a priority field), Reading and Mathematics (as secondary fields), ranked Romania and the Republic of Moldova on the 41st and 45th place, respectively, out of 81 participating countries worldwide.

The causes of functional illiteracy are multiple and complex, being at the crossroads between the individual and social environment, the individual and economic, cultural, educational, political environments. Characteristically for this phenomenon is the fact that it is not specific to a single age group (it can be identified in both students, young persons and adults) and has a heterogeneous territorial distribution.

Whereas in Romania, in the communist period, up until 1956, illiteracy was almost eradicated, in 2021 the rate of school dropout was 13.6% at the level of primary education. According to the Global Childhood Report 2021, in the Republic of Moldova, the school dropout rate was 17.1%, being the highest at European level.

In the current context, the main factor leading to such a high illiteracy threshold is poverty. The economic downturn and health crisis, the increasingly higher unemployment rate, the lack of jobs, are just some of the factors that have led to the increase in the level of poverty among the population, and implicitly to growing illiteracy, school dropout and early leaving of the educational system. Alongside with poverty, other reasons for illiteracy or school dropout should be mentioned, i.e. cultural and social causes, as well as the lack of values in society.

Functional illiteracy, school dropout and early leaving of the educational system are complex and multidimensional social phenomena, generated by both individual/family factors, as well as economic, social and educational factors. These phenomena can have medium and long-term consequences, with negative effects on future employment outcomes and salary earnings, as well as negative consequences on public physical and mental health. They can also lead to drug abuse, involvement in criminal activities, disengagement from life and society, and over a longer period of time, large varieties of social conditions can appear: isolation, employment under insecure conditions and in exchange for low wages, criminal activity and physical and mental health problems, not starting a family, divorce, etc.

Increasing the positive attitude toward school and strengthening the motivation for learning among students, both at European level, as well as in Romania and the Republic of Moldova must be correlated to the economic reasoning, according to which the knowledge-based society and the economic globalization will function effectively and will progress only if the young generations entering the labour market are equipped with solid knowledge and practical skills that, throughout their lives, can be transferred to different contexts of learning and professional activity.

2. Functional Illiteracy: Conceptual Approaches, Characteristics, Causes

In 1949, the United Nations Educational, Scientific and Cultural Organization (UNESCO) recognized the ability to read and write as a fundamental right (Bhola, 1995; Vágvölgyi et al., 2016). This recognition led in the following years to the need for a clear and operational definition to delineate literate and illiterate people, as well as to the identification of different levels of competence.

In 1978, the UNESCO General Conference stated: “A person is literate who can with understanding both read and write a short simple statement related to his/her everyday life. A person is illiterate who cannot with understanding read and write a short simple statement related to his/her everyday life. A person is functionally literate who can engage in all those activities in which literacy is required for effective functioning of his/her group and community and also for enabling him/her to continue to use reading, writing and calculation for his/her own and the community's development. A person is functionally illiterate who cannot engage in all those activities in which literacy is required for the effective functioning of his/her group and community and also cannot use reading, writing and calculation for his/her own and the community's development.” (UNESCO, 1978, p. 183).

In the 21st century, the concept of functional illiteracy has been extended to numerous activities that characterize contemporary society. For example, Bugaievskia (2012) distinguished the following forms of functional literacy: general literacy, computer literacy, language proficiency, informational and communicative literacy, household literacy, emerging behaviour literacy, socio-political literacy. Voronovych (2019) also included general legal and professional literacy, environmental literacy, civic literacy (ability to assess the political and economic situation and make appropriate decisions).

Literature on functional illiteracy has proposed various definitions and standards for assessing the level of this phenomenon. Beyond PIAAC, ALL and IALS, PISA (for estimating the number of functional illiterates in various age groups), other studies used the years of study to measure functional illiteracy (Bhola, 1995; Martinez & Fernandez, 2010; Vágvölgyi et al., 2016) or developmental delay (Eme, 2011; Rüsseler et al., 2013). Functional illiteracy is often confused with illiteracy itself (Thompson & Binder, 2003) or a sample is called “functional illiterate” without any justification (van Linden & Cremers, 2008; Kosmidis et al., 2011). In this context, the overall picture of functional illiteracy assessment is particularly problematic, which can make any estimate relative.

Since 1967, the annual International Literacy Day (ILD) celebrations have been held around the world on September 8th, to remind policy makers, practitioners and the public of the critical importance of literacy. Literacy is a fundamental human right, and it opens the door to enjoying other human rights, greater freedoms, and global citizenship. Literacy is also a basis for people to acquire broader knowledge, skills, values, attitudes and behaviours to promote a sustainable peace culture based on respect for equality and non-discrimination, the rule of law, solidarity, justice, diversity and tolerance, and to build harmonious relationships with the self, other people and with the planet. And yet, shockingly, over 796 million people in the world cannot read and write (Final Report from the World Literacy Foundation, 2023). Around 67 million children do not have access to primary education and another 72 million miss secondary education.

If one starts from the definition of functional illiteracy given in 1978 by UNESCO, then it can be said that it refers to the reduced ability of a person to transpose into daily life the information acquired during school years. In this context, functional illiteracy is also perceived as a missed opportunity to learn and acquire the necessary skills for development in the information society.

The *skills* that a functional literate should possess relate to three broad dimensions:

- *reading and understanding* of a written text (making logical connections, extracting main ideas, expressing a point of view);
- *mathematical literacy* (the ability to translate abstract information into daily activities – shopping, etc.);
- *scientific literacy* (the ability to understand phenomena in nature and make decisions based on factual data).

Among the *characteristics* of functional illiteracy, the following can be mentioned:

- it is not a problem limited exclusively to young people, it rather affects all age groups;
- its territorial distribution is complex and heterogeneous;
- functional illiteracy affects both employed people, as well as those excluded from the labour market;
- it is a phenomenon that unequally affects men and women of different age segments;
- many persons affected by functional illiteracy adopt avoidance strategies to hide these shortcomings;
- functional illiteracy is a factor of exclusion and poverty that prevents people from conducting a professional activity, limits their participation in democratic and social life, and seriously affects personal achievement and the safeguarding of their own rights.

The *factors* leading to functional illiteracy are both *individual* (attention disorders, dyslexia, intellectual impairments, physical, sensory, motor and somatic disabilities, factors at the level of psycho-social development of the person, etc.) as well as *socio-economic and cultural* factors (poverty, unemployment, family conflicts, family violence, dramatic family events, ethnicity, religious beliefs, etc.).

The most eloquent results on functional illiteracy among 15-year-olds are provided by PISA testing. PISA investigates the “basic skills” in three major areas: Reading, Mathematics and Science, so-called *literacy in reading, mathematics and science*.

Up to the present date, data has been collected in 2000, 2003, 2006, 2009, 2012, 2015, 2018 and 2022, with each cycle ending with the publication of reports to present the results. Since the first round of PISA assessment and up to the present day, more than 80 countries and economies have participated, 50 of them being countries with mean incomes. In addition to the three core areas – reading, mathematics and Science – PISA testing also targets an innovative field, which in 2022 was creative thinking.

The PISA results are used by policy makers in many parts of the world either to assess the competences of students in their own country compared to those of students in other participating countries/economies, or to establish benchmarks for improving the quality of education, or to understand the strengths and weaknesses of educational policies implemented up to the assessment date.

3. Functional Illiteracy in Romania and in the Republic of Moldova

The PISA 2022 assessment focused on Mathematics as the main field, with Reading and Science as the secondary fields and Creative Thinking as the innovative field. An assessment of the financial literacy among young people was included in the PISA 2022 program for the participating countries and economies.

Approximately 690,000 students completed the PISA assessment in 2022, accounting for approximately 29 million 15-year-olds in schools from the 81 participating countries/economies.

A number of 73,640 15-year-old students from Romania, at the level of middle school and high school from 262 countrywide school institutions, and about 6,803 students from the Republic of Moldova from 265 education institutions participated in the PISA 2022 assessment.

Thus, in 2022, on the *Mathematics general scale* (main field of PISA 2022), the two countries recorded close average scores:

- Romania: 428 points, 2 points down as compared to 2018, but 6 points up as compared to the testing in the year 2000. With this score, in 2022, Romania ranked 41 out of 81 countries/economies with validated databases;
- Republic of Moldova: 414 points (dropping by 7 as compared to PISA 2018), a level similar to that of students in Cyprus, Bulgaria, Qatar, Chile, Uruguay, Malaysia.

On the *Reading general scale* (secondary field of PISA 2022), Romania registered an average score of 428 points (up by only 1 point as compared to the 2018 testing, and down by 10 points as compared to 2012), with a 10-year average tendency of the average performance (2012-2022) amounting to -9.7.

In the same field, students from the Republic of Moldova obtained an average score of 411 points (as compared to 424 points at PISA 2018), the 10-year average tendency of the average performance (2012-2022) amounting to -8.8.

In the second secondary field of PISA 2022, Science, Romania scored an average score of 428 points, two points less than in 2018, and 11 points less than in PISA 2009. In these circumstances, Romania had similar performances in 2022 to countries such as Uruguay, Qatar, United Arab Emirates, Kazakhstan, Bulgaria.

Students from the Republic of Moldova have accumulated 417 points in the Science field, down by 7 points compared to the PISA 2018 test, which places the Republic of Moldova at the same level of performance in this field as Bulgaria, Malaysia, Mongolia, Colombia, Costa Rica.

On the PISA 2022 performance scale, seven levels of skills have been defined, of which:

- level 2 (over 420 points) is considered to be the basic level that needs to be reached by a 15-year-old before completing compulsory education, in order to be able to function effectively in the knowledge-based society;
- level 5 (over 607 points) encompasses those students who can use abstract scientific ideas or concepts to explain unfamiliar and more complex phenomena, events and processes involving multiple causal connections;
- level 6 (over 669 points), where students can solve abstract problems and demonstrate creativity and flexible thinking in elaborating solutions.

In the field of Science and Reading, PISA 2022, 46.5% and, respectively, 41.1% of the Romanian students registered competence levels below level 2, and 0.5% and, respectively, 1.91% of the Romanian students performed at levels 5 and 6. In the field of Mathematics, 47% of students scored below level 2 of competence and 4.0% performed at levels 5 and 6.

In terms of the performance of students from the Republic of Moldova, in Science and Reading, PISA 2022, 40.8% and, respectively, 41.1% of them ranked below the level of competence 2, and 1.4% and, respectively, 0.5% performed at the higher levels. In Mathematics, 55.2% of pupils in the Republic of Moldova scored results below level 2 and 1.2% performed above level 5.

The results of PISA assessments highlight that by 2015 there is a slight decrease in the percentage of Romanian students ranking levels below 2 (students who can perform actions that are almost always obvious or require a minimum information synthesis, but in all cases the actions result immediately from the given stimuli; they are able to perform simple calculations with integers and to follow a clear instruction describing a single step or a single operation) in all the fields (with 2.9 pp in Science, 1.7 pp in Reading and 7.13 pp in Mathematics) (Fig. 1).

It is worth noting that by 2015 there is a significant reduction in the share of Moldovan students with performances below level 2 (with 5.3 pp in Science, 11.4 pp in Reading and with 10.4 pp in Mathematics) (Fig. 1).

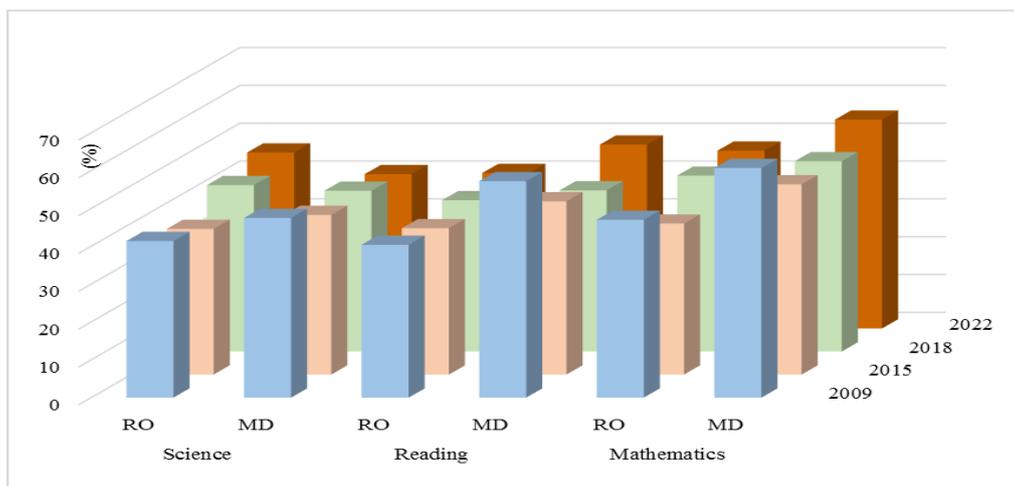


Fig. 1. The evolution of the percentage distribution of students who performed below level 2, in PISA 2009-2022 assessments, in Romania and the Republic of Moldova

Source: Authors' elaboration after OECD's Programme for International Student Assessment (PISA), 2002-2022

For the same period, the share of students with outstanding performance, i.e. Performing at levels 5 and 6 (students who prove an increased ability to solve problems of which solutions often require the incorporation of mathematical knowledge that are not explicitly mentioned in the work task or are able to think critically and to correctly use symbolic and formal mathematical operations and relationships to communicate their reasoning clearly) increased by 0.3 pp in Science, 1.3 pp in Reading and by 2 pp in Mathematics for the students in Romania and by 0.5 pp in Science, 1.1 pp in Reading and by 1 pp in Mathematics for the students in the Republic of Moldova (Fig. 2).

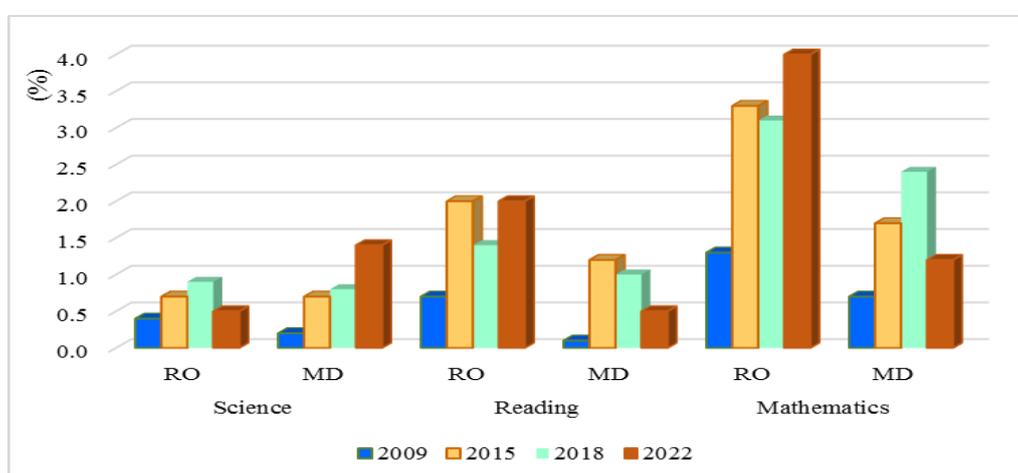


Fig. 2. The evolution of the percentage distribution of students who performed at levels 5 and 6, in PISA 2009-2022 assessments, in Romania and the Republic of Moldova

Source: Authors' elaboration after OECD's Programme for International Student Assessment (PISA), 2002-2022

Analysis of the results obtained by the students in Romania and the Republic of Moldova performing at level 2 (students who can use basic or everyday scientific knowledge to identify a valid conclusion from a set of simple data and they demonstrate basic epistemic knowledge in that they are able to identify questions that can be investigated scientifically) indicate an increase in the share of this segment of students only in Science, and a reduction in Reading and Mathematics for Romanians, while for the students in the Republic of Moldova the results are inversed (increase in Reading and Mathematics and decrease in Science (Fig. 3).

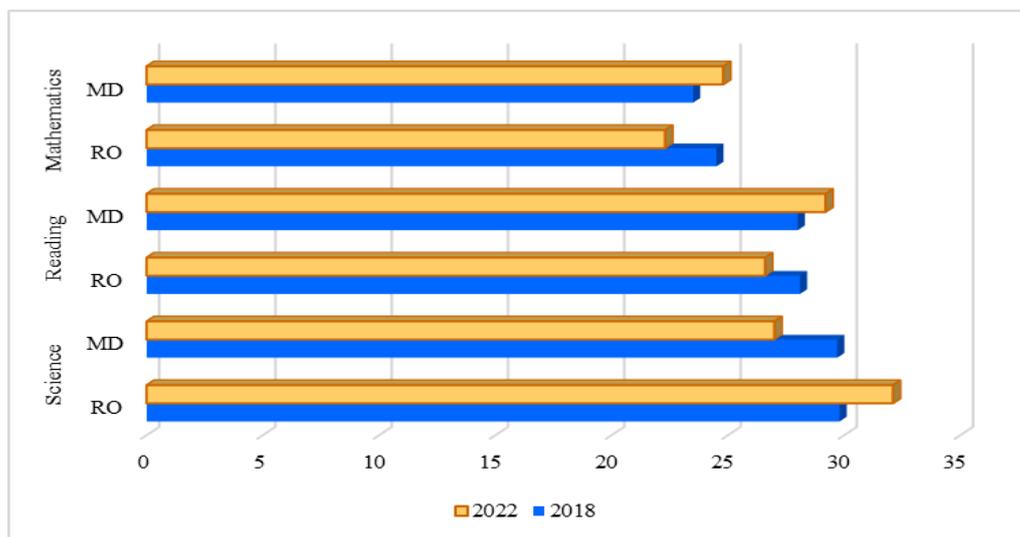


Fig. 3. Changes in the share of students who performed at level 2, at PISA 2018-2022 evaluations, in Romania and the Republic of Moldova, (%)

Source: Authors' elaboration after OECD's Programme for International Student Assessment (PISA), 2002-2022

These changes may also be due to the COVID-19 pandemic, which has had negative consequences for both children's educational progress and their emotional health and, moreover, their online safety and have the same trends as the OECD average.

Throughout the consecutive PISA assessments until 2018, no change in the OECD average has ever exceeded four points in Mathematics and five points in Reading: However, in PISA 2022, the OECD average dropped by almost 15 points in Mathematics and by about 10 points in Reading compared to PISA 2018. Nevertheless, the average performance in Science remains stable. Unprecedented declines in Mathematics and Reading indicate the shocking effect of the COVID-19 pandemic on most countries.

However, the decline can only be partially attributed to the COVID-19 pandemic, with negative trends in the Mathematics performance already being

apparent before 2018 in some countries such as Belgium, the Czech Republic, Finland, France, Hungary, Iceland, etc.

The period during which schools were closed varied among countries (for example, from limited closing of schools in Iceland, Sweden and Chinese Taipei, to systems that experienced longer periods in which schools were closed, such as Brazil, Ireland and Jamaica).

The closing of schools during the pandemic has led to a global conversion to digitally-enabled distance learning. If we take into account the long-term challenges that have already arisen, such as the use of technology in classrooms, then a defining feature of effective educational systems will be the way in which they, together with decision-makers, find the right balance between risks and opportunities.

In the PISA test of 2022, on average, in OECD countries, boys outperformed girls in the field of Mathematics by nine points, and girls outperformed boys in Reading by 24 points: “the difference between boys and girls does not concern the level of their performance in the scientific fields, but their attitude toward science” (Report of the National Center: Testing Cycle 2014-2015, 2017). In Science, the difference in performance between boys and girls was not significant.

Characteristic for Romania and the Republic of Moldova is that girls scored slightly higher than boys in Science and Reading and a lower score in Mathematics (Fig. 4).

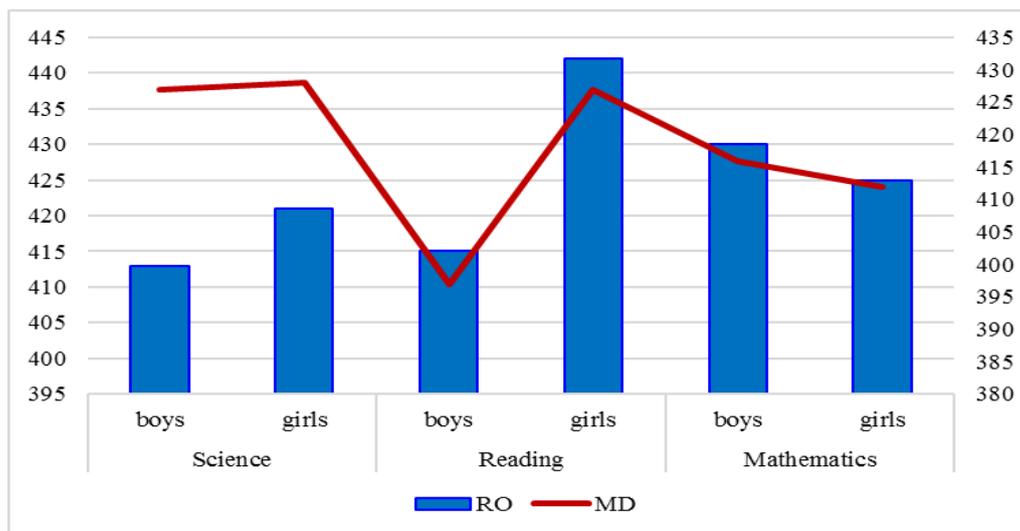


Fig. 4. Performance in Mathematics, Reading and Science, by gender in PISA 2022 assessments, (average score)

Source: Authors' elaboration after OECD's Programme for International Student Assessment (PISA), 2002-2022

The equity of educational systems with regard to students from different socio-economic backgrounds can be examined using different characteristics of the statistical relationship between student performance at PISA assessments and their socio-economic status. The socio-economic status index allows the identification of advantaged and disadvantaged students, as well as advantaged and disadvantaged educational institutions in each country.

According to the data in Fig. 5, it results that, both in Romania and in the Republic of Moldova, socio-economically disadvantaged students perform worse in all fields than advantaged students (Fig. 5).

In Romania, the difference (in the manner) between the average scores of these categories of students is over 100 points (in the field of Mathematics 132 points; in the field of Reading 124 points; in the field of Science 123 points). About 7% of disadvantaged students in Romania, despite their socio-economic disadvantage, still manage to reach higher levels of competence in Mathematics, as compared to other students in their own country.

In the Republic of Moldova, the difference between the average scores is over 80 points (in the field of Mathematics 82 points; in the field of Reading 92 points; in the field of Science 81 points). Significant differences were registered at the level of the European Union, for the EU average the biggest difference was in the field of Science (99 points) and the smallest difference in the field of Reading (96 points).

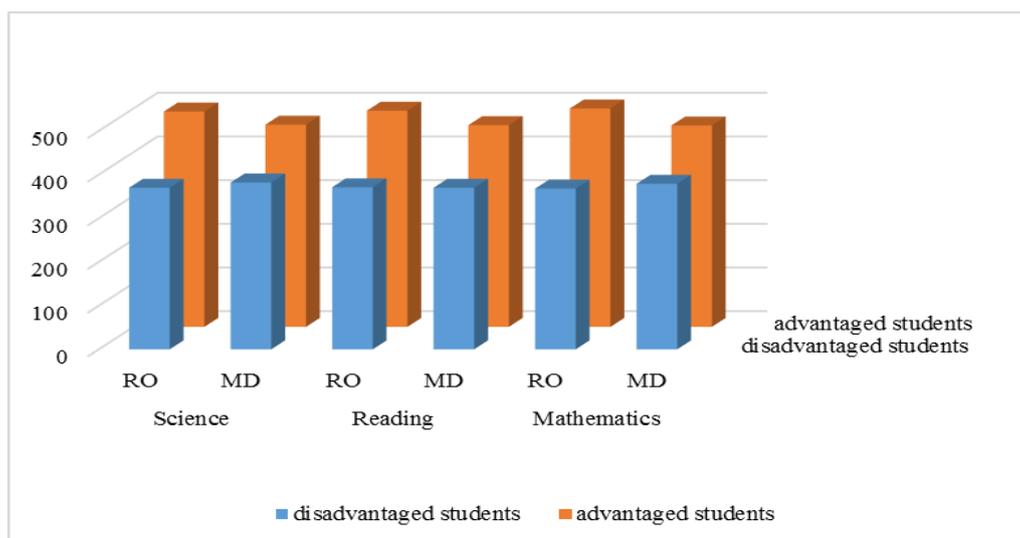


Fig. 5. Performance at PISA 2022 assessment among the disadvantaged and socially-economically advantaged students (average score)

Source: Authors' elaboration after OECD's Programme for International Student Assessment (PISA), 2002-2022

Functional illiteracy in Romania and in the Republic of Moldova is also sustained by the decrease in participation in pre-school education, by groups at risk of early school abandonment, with a focus on children belonging to the Roma minority and those from rural areas, by the increase in school dropout, by the poor participation of adults in lifelong learning, by the high share of rural unemployed people who are almost illiterate, etc.

4. Conclusion

PISA tests are internationally standardized and represent a global effort to assess and compare student performance in key areas of education. Initiated by the Organisation for Economic Cooperation and Development (OECD) in 1997, this program has become over the years a tool which is both effective and equally important to understand and assess the global education system.

According to OECD data regarding PISA 2022 assessments, the percentage of 15-year-olds in the compulsory education in Romania and in the Republic of Moldova, who cannot select the relevant information and cannot make basic reasoning, and must therefore be considered functionally illiterate, is 42% and 44.3%, respectively.

The average scores obtained by Romanian students in 2022 were similar to those recorded in 2018 in all fields, but in Mathematics they are lower than in PISA 2012 and 2015 assessments. The results in Reading and Science were similar to those obtained in the previous PISA assessments, starting with 2012. Although there has been no significant improvement of Romanian students in the PISA 2022 assessment, however, this relative stability can be considered positive in the context of the expansion of compulsory education and of the improvement of access to education of marginalized groups which has increased the number of 15-year-olds eligible for the PISA assessment.

The results obtained by students from the Republic of Moldova indicate that this country reduced the difference from other European countries in Mathematics, Reading, but in Science the trend is still negative.

The PISA 2022 test also shows that girls, both from Romania and from the Republic of Moldova, achieved better results than boys in Reading and Science. Students in urban areas performed better than those in rural areas, and students socio-economically advantaged registered a higher performance in all fields than disadvantaged students.

The COVID-19 pandemic, the cessation of educational institutions' activity and the transition to online or hybrid learning have had a negative impact on

academic performance. In the PISA 2022 test, the average scores in most participating countries decreased as compared to those in previous test cycles.

A poor (or missing) qualification of young people and adults does not give them the opportunity to access better paid jobs and therefore, even with economic growth, poverty levels do not decrease. The roots of this problem are obviously in the education system.

In order to mitigate the effects of functional illiteracy, several strategies should be considered, that should address both disadvantaged groups (socially and economically vulnerable families) as well as teachers.

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The Impact of Fiscal Decentralization on Selected Macroeconomic Variables at the County Level in Romania from 1999 to 2023

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ABSTRACT

In addition to the information held at the national level, regional statistics can provide extremely valuable information regarding disparities at the local level. Thus, this paper explores the impact of fiscal decentralization on some important macroeconomic parameters at the subnational level. The article uses a panel econometric model to analyze the impact of fiscal decentralization on variables such as employment, nominal salary and gross added value at the county level in Romania in the period 1999–2023. We used the method of ordinary least squares and the techniques of extrapolation, interpolation, and Granger causality. The findings reveal that fiscal decentralization can improve certain parameters, but at the same time it must comply with certain conditions for a substantial effect at the local level. Beyond the need for a certain level of responsibility and local institutional autonomy, for a relevant impact, the decentralization process also requires a better correlation between the decentralization of local expenditures and revenues and an effective prioritization of objectives.

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The paper is a partial capitalization (only a subchapter) of the one entitled Descentralizarea fiscală între deziderat și provocare – o analiză asupra echilibrelor bugetare locale la nivelul României [Fiscal decentralization between aspiration and challenge – an analysis of local budget balances in Romania] by Alina Georgeta Ailincă, project that will be completed within the “Victor Slăvescu” Center for Financial and Monetary Research, “Costin C. Kirițescu” NIER, Romanian Academy.

1. Introduction

The analysis of macroeconomic indicators can prove to be a valuable source of information regarding the future economic trajectory and what needs to be done at the national level, but alongside this, an analysis at the regional level, at the county level, can show the real temporary irregularity in achieving the economic and social objectives. In addition to the analysis of the budget elements at the county level, more precisely the dissection of the income and expenditure elements, either viewed comparatively between counties, or viewed at the level of each county in their dynamics over time, an important analysis should focus on the impact of these elements on other macroeconomic variables.

Thus, this article explores the impact of fiscal decentralization on some important macroeconomic parameters at the subnational level. The article uses a panel econometric model to analyze the impact of fiscal decentralization on variables such as employment, nominal salary and gross added value at the county level in Romania in the period 1999–2023. Data sources are extremely varied such as Eurostat, the National Institute of Statistics (NIS), AMECO, regional data of the Ministry of Finance, etc. as well as numerous international studies and analyses. Although fiscal decentralization can contribute to an increase in local responsibility and autonomy, it is equally the consequence of the processes of improving local responsibility, the consequence of the improvement of macroeconomic parameters analyzed at the local level. Thus, it is obvious that there must be a substantial correlation between the decentralization of revenues and expenditures for an efficiency of results, but equally, fiscal decentralization must not be seen as an objective in itself, but only as an effective means of improving fiscal-budgetary performance at the local level. Therefore, the correct establishment of objectives and the prioritization of those that have a high traction power in solving regional social asymmetries must be put in front of any decentralization objective achieved only for the sake of increasing local fiscal-budgetary power.

2. Literature Review

Although fiscal decentralization speaks of an empowerment of local government regarding the power to make spending, taxing and financing decisions at the subnational level (Ebel & Yilmaz, 2003), nevertheless there are many variants of the definition of decentralization, for each often meaning everything and completely different, sometimes overlapping and sometimes substantially different from what local autonomy means (Martinez-Vazquez et al., 2015). Despite the differences, the advantages and disadvantages of fiscal decentralization are often studied, focusing on

case studies and especially on what has worked well, at the level of good practices that can be taken over to other countries or regions of the world, having numerous measurement methods, variables involved and estimated effects (Rodden, 2004; Enikolopov & Zhuravskaya, 2007; Rondinelli, 1990; Neyapti, 2010; Fedelino & Ter-Minassian, 2010; Voigt & Blume, 2012; Ponce-Rodríguez et al., 2012; Filippetti & Sacchi, 2013; Gemmell et al., 2013; OECD, 2021). Fiscal decentralization can improve the performance of public sectors (Oates, 1999), being an increasingly used way in recent decades considered to improve public policies and trust in them (Garman et al., 2001; Hooghe et al., 2010; Martinez-Vazquez et al., 2015).

Analyzing fiscal decentralization and government finance at the sub-national level in low- and middle-income countries, Bahl and Bird (2018) point out that although international good practices matter for implementing good fiscal decentralization, personal experience, specific case study of each country, particularizing to the realities on the ground is the most important for an optimal result, as there are no universally valid solutions.

Regarding the effects in the economy, Hanif et al. (2020) analyzes how fiscal decentralization affected the economic growth of 15 developing federations from 2000 to 2015 based on the Generalized Method of Moments (GMM), concluding that fiscal decentralization, of both revenue and expenditure, has a significant, positive impact on economic growth.

Studying the effects of fiscal decentralization in the fields of health and education, through an instrumental analysis of the Tobit variable in various countries, Nakatani et al. (2022) conclude that there are negative effects of fiscal decentralization on health outcomes, but that decentralization of education spending by subnational governments improves educational outcomes. Regarding democracy, analyzing the relationship between fiscal decentralization and government spending, Obeng (2021) notes that the negative effect of fiscal decentralization diminishes as the level of (participatory) democracy increases.

Analyzing the problem of poverty, Wang and Deng (2023), using the neural network method based on administrative units in China, find that the increase in financial autonomy at the county level in China significantly increases the level of regional natural poverty, and the positive impact of fiscal decentralization at the county level on the index natural poverty is different in regions with different mechanisms of natural poverty formation, however, optimized fiscal decentralization is favourable to alleviating natural poverty.

Regarding regional studies, there are numerous case studies on countries or regions in Europe, South America, Africa and Asia, but few studies focus strictly on

Romania (Profiroiu & Profiroiu, 2006; Manta, 2007; Onofrei et al., 2022, etc.). In this context, this article can prove its usefulness in supplementing with useful information on the effects of fiscal decentralization of revenues and expenditures for Romania's counties.

3. Methodology

We used the method of ordinary least squares (estimating the relationship between a dependent variable and one or more independent variables by minimizing the sum of the squared differences (errors) between the observed values and the predicted values) and the techniques of extrapolation (estimating or predicting values beyond the range of known data points by assuming that the underlying trend or pattern continues), interpolation (estimating values within the range of known data points by leveraging the continuity of the trend between these points), and Granger causality (determining whether one time series can predict another).

The analysis refers to the relationship between a series of macroeconomic indicators such as employment, nominal gross salary, gross added value and the fiscal decentralization of income and expenditure respectively. The study period is 1999–2023, and the method is ordinary least squares estimation. Where the data stops in the previous period for example 2021, or most frequently 2022, they are extended by various methods of extrapolation and forecasting, and where they are missing in the series, interpolation methods are used. Therefore, the results should be viewed with caution. At the same time, using the panel technique, one must take into account the rather large heterogeneity of information. For this reason, as well as the need to supplement the data, the results should be viewed with some caution. However, given that the data refer only to Romania, despite a local heterogeneity, they present at least national level systematization. The final number of observations obtained is 1050, informational volume can be considered relevant, but further studies can take into account the expansion of the data series (for example from 1990). At the same time, future analyzes can also focus on informational details at the level of municipalities or cities, or make a distinction between urban and rural areas, etc.

4. Results and Discussion

First of all, in order to identify the link between the evolution of the independent indicators and the dependent variable, a series of specific indicators of Eurostat, the Ministry of Finance and the National Institute of Statistics (NIS) of Romania presented in the table below (Table 1) will be selected. Later, some aspects of the statistical description will be presented.

Table 1. Presentation of variables and data sources

Acronym for Indicators	Description of Indicators	Unit of Measure	Source
ESC	Share of employment at the county level in employment at the national level	%	Eurostat
SNANSC	The share of nominal average net wage earnings on activities at the county level in the average net wage earnings at the national level	%	National Institute of Statistics of Romania, TEMPO online
SGVAC	Share of gross value added (GVA) per county in total gross value added at national level	%	Eurostat
IFDC	The share of county income in total income at the national level or the fiscal decentralization of revenues at the county level	%	Ministry of Development, Public Works, and Administration of Romania (2024)
EFDC	Share of county expenditures in total expenditures at national level or fiscal decentralization of expenditures at county level	%	Ministry of Development, Public Works and Administration of Romania (2024)
GDPSC	Share of GDP per county in total national GDP	%	Eurostat
SPOPC	Share of population by county in total population	%	Eurostat

Source: Author's systematization and processing by calculating as a percentage, based on the value at national level

Primary data: Eurostat initial indicators, NIS (TEMPO), Ministry of Finance, AMECO

Thus, in order to analyze the interrelationship between the independent indicators and the dependent variable – in turn, being chosen: employment, nominal net salary and gross added value at the county level, we first study the statistical properties of the variables, such as the mean value, standard deviation, skewness and kurtosis (Table 2).

The standard deviation, with some exceptions (notably for the SNANSC variable), appears in most cases to be close to the mean, suggesting clustering around the mean. The closeness between the average value and the median value, for almost

all the studied variables, leads to the conclusion of a relatively symmetrical distribution.

The information regarding the asymmetry of the distribution of the probability of a random variable in the vicinity of the mean (skewness) shows us through the positive and substantial values that the tail of the distribution is on the right, being substantially distorted. For all variables studied, the kurtosis is substantially above 3, indicating that the distribution is leptokurtic, producing more values than a normal distribution. The result of the Jarque-Bera test, which can further confirm whether the distribution is normal or not, will not be commented as the series is still small for this test (below 2000 observations) and for small samples the test is not reliable enough. Based on the above information, an augmented Dickey-Fuller unit root test (ADF) can be constructed.

Table 2. Statistical description of the chosen variables

	ESC	SNANSC	SGVAC	IFDC	EFDC	GDPSC	SPOPC
Mean	2.381357	90.299010	2.379012	0.412594	0.355348	2.378203	2.428516
Median	1.955051	87.371670	1.651964	0.372122	0.320925	1.649613	2.153561
Maximum	12.699800	146.848000	25.104360	4.669360	3.576745	25.104360	9.591640
Minimum	0.810776	71.134700	0.620940	0.000198	0.000173	0.518165	0.987972
Std. Dev.	1.644525	12.706310	3.354616	0.491167	0.422963	3.368969	1.300006
Skewness	3.666811	1.647857	5.463723	4.715678	4.654195	5.463620	3.252785
Kurtosis	20.760980	6.511110	34.158430	32.699180	31.529740	34.108560	17.687230
Jarque-Bera	16154.000	1014.546	47698.720	42480.890	39400.910	47562.670	11289.120
Probability	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sum	2500.425	94813.960	2497.963	433.224	373.115	2497.113	2549.942
Sum Sq. Dev.	2836.980	169361.300	11804.870	253.066	187.664	11906.100	1772.826
Observations	1050	1050	1050	1050	1050	1050	1050

Source: Author's processing and calculation, using EViews 9

Next, we present the results of the augmented Dickey-Fuller unit root test, the results of the correlation matrix, the regression equations showing the link between the proposed variables, as well as the results of the Granger causality, where we only considered links with a probability below 5%.

Table 3 demonstrates that all the variables used in this investigation are stable at order 0, without the need to proceed to the first difference. However, in building the regression model, we will also take into account the information regarding the first difference, as well as the quadratic form of some variables (see the population at the county level) to also investigate possible non-linearities (Sow and Razafimahefa (2015) applied the quadratic form to the fiscal decentralization variable).

Table 3. The results of augmented Dickey-Fuller unit root tests for the selected variables

Variables ADF	T-statistic	Mackinnon Critical Value at 5 %	P-value	Integration Order	Observations
ESC	-4.973499	-3.414103	0.0002	I(0)	Stationary
SNANSC	-5.623905	-3.414103	0.0000	I(0)	Stationary
SGVAC	-4.850861	-3.414103	0.0004	I(0)	Stationary
IFDC	-4.176499	-3.414182	0.0050	I(0)	Stationary
EFDC	-4.254084	-3.414182	0.0038	I(0)	Stationary
GDPSC	-5.062053	-3.414103	0.0002	I(0)	Stationary
SPOPC	-5.028069	-3.414103	0.0002	I(0)	Stationary

Source: Author's processing and calculation using EViews 9

Table 4 shows the correlation matrix between the independent variables and the dependent variable (even if it is successively viewed as occupation (ESC), average gross nominal wage (SNANSC) and gross value added (SGVAC)).

Table 4. Correlation matrix of the chosen variables

	ESC	SNANSC	SGVAC	IFDC	EFDC	GDPSC	SPOPC
ESC	1						
SNANSC	0.641	1					
SGVAC	0.919	0.709	1				
IFDC	0.749	0.472	0.778	1			
EFDC	0.749	0.470	0.779	0.994	1		
GDPSC	0.918	0.708	1.000	0.775	0.776	1	
SPOPC	0.938	0.637	0.893	0.712	0.713	0.893	1

Source: Author's processing and calculation using EViews 9

The results are interesting and worth commenting on. Thus, we observe that although the correlation values are highly significant, suggesting that the problem could also be autocorrelation between the data, the values for fiscal decentralization of revenues and expenditures in relation to the three dependent variables (ESC, SNANSC, SGVAC) are still within some reasonable range (up to 0.800). Considering that all the data are constructed as percentage values, as weights at the county level from the national level, some homogeneity of the data and a higher degree of information correlations are expected. We thus observe, based on the correlation matrix, that SGVAC, followed by ESC and less by SNANSC, is best explained by the process of fiscal decentralization of revenues and expenditures, respectively, at the county level.

Based on the correlation matrix, the regression equations verified in this subsection are as follows:

$$ESC = f(IFDC, GDPSC, SPOPC) \quad (1)$$

$$SNANSC = f(IFDC, GDPSC, D(SPOPC)^2) \quad (2)$$

$$SGVAC = f(IFDC, GDPSC, D(SPOPC)) \quad (3)$$

$$ESC = f(EFDC, GDPSC, SPOPC) \quad (4)$$

$$SNANSC = f(EFDC, GDPSC, D(SPOPC)^2) \quad (5)$$

$$SGVAC = f(EFDC, GDPSC, D(SPOPC)) \quad (6)$$

The equations are represented by the form:

$$Y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \varepsilon$$

where:

Y = the dependent variable, chosen successively: ESC – Share of employment at the county level in employment at the national level (%); SNANSC – Share of average net nominal wage earnings on activities at county level in average net wage earnings at national level (%); SGVAC – Share of the gross added value (GVA) of the counties in the total gross added value at national level (%);

A = Constant; β_1 -3 = slope of variables x_1 - x_3 – coefficients; x_1 - x_6 = regression coefficients or independent variables, more precisely: IFDC – Share of county revenues in total revenues at the national level or fiscal decentralization of revenues at the county level; EFDC – Share of county expenditures in total expenditures at national level or fiscal decentralization of expenditures at county level; GDPSC – Share of GDP per county in total national GDP in % SPOPC – Share of population per county in the total population; ε = error term. To explain the variable SNANSC, the independent variable SPOPC is preferred in the first difference quadratic form.

Thus, we observe (Table 5) that for the first and third desired indicators to be explained (ESC and SGVAC) the R-squared and adjusted R-squared are extremely high, the Probability (F-statistic) is also adequate. And for the second equation R-squared and adjusted R-squared the values 0.51926 and 0.51788 can also be considered relevant.

However, the coefficient of fiscal decentralization is relatively satisfactory in the case of the first equation (the one that explains employment behavior) and substantial and negative in the case of the second equation (which explains the behavior of wages – SNANSC), meaning that fiscal decentralization does not

necessarily support parameter of the average gross nominal salary at the county level, but rather reduces it substantially.

Table 5. Results of the regression equations that have income decentralization among the independent variables

Method: Least squares and included 1050 observations				Coefficient	t-Statistic	Probability
Dependent variable	ESC	Independent variable	C	0.107335	2.375335	0.0177
R-squared	0.913316		IFDC	0.219177	4.535737	0.0000
Adjusted R-squared	0.913067		GDPSC	0.171256	15.60427	0.0000
F-statistic	3673.61		SPOPC	0.731438	28.55805	0.0000
Prob(F-statistic)	0.0000		Durbin-Watson stat		0.579806	
Method: Least squares and included 1050 observations				Coefficient	t-Statistic	Probability
Dependent variable	SNANSC	Independent variable	C	84.65832	237.239	0.0000
R-squared	0.51926		IFDC	-5.37999	-6.02282	0.0000
Adjusted R-squared	0.51788		GDPSC	3.333199	24.86182	0.0000
F-statistic	376.2448		D(SPOPC)^2	-0.43836	-2.551	0.0109
Prob(F-statistic)	0.0000		Durbin-Watson stat		0.148953	
Method: Least squares and included 1050 observations				Coefficient	t-Statistic	Probability
Dependent variable	SGVAC	Independent variable	IFDC	0.049356	7.818971	0.0000
R-squared	0.999593		GDPSC	0.990377	1009.246	0.0000
Adjusted R-squared	0.999593		D(SPOPC)	-0.09905	-18.7879	0.0000
Akaike info criterion	-2.54334					
Schwarz criterion	-2.529163		Durbin-Watson stat		2.003556	

Source: Author's processing and calculation using EViews 9

The results are relatively similar in the case of expenditure. The probability for the total equations chosen is adequate, being below 0.05. Thus, these variables can be confidently accepted in the models. Control variables such as GDP and population

are considered in the relevant literature to be highly relevant and explanatory for the dependent variables pursued. It is possible that, along with population, decentralization can act as a factor to move wages away from national targets, sometimes leading to the local postponement of the reduction of wage asymmetries. However, the results must be analyzed with caution, in the sense of looking for all the explanations necessary to understand the deep and real links between the dependent and independent variables investigated.

Therefore, following the links revealed by the Granger causality, we can see that really only the decentralization of expenditures can explain the decentralization of revenues, and in general the dependent variables, ESC, SNANSC and SGVAC, explain the process of fiscal decentralization at the local level rather than being explained by this process of decentralization of incomes and expenditures, respectively.

Table 6. The results of regression equations that include expenditure decentralization among the independent variables

Method: Least squares and included 1050 observations				Coefficient	t-Statistic	Probability
Dependent variable	ESC	Independent variable	C	0.10755	2.378948	0.018
R-squared	0.913245		EFDC	0.2498	4.438828	0.000
Adjusted R-squared	0.912997		GDPSC	0.171577	15.60757	0.000
F-statistic	3670.33		SPOPC	0.731721	28.55941	0.000
Prob(F-statistic)	0.0000		Durbin-Watson stat		0.582583	
Method: Least squares and included 1050 observations				Coefficient	t-Statistic	Probability
Dependent variable	SNANSC	Independent variable	C	84.69004	237.6891	0.0000
R-squared	0.520705		EFDC	-6.547828	-6.287577	0.0000
Adjusted R-squared	0.519329		GDPSC	3.366525	24.99549	0.0000
F-statistic	378.4288		D(SPOPC)^2	-0.46277	-2.689301	0.0073
Prob(F-statistic)	0.0000		Durbin-Watson stat		0.150573	
Method: Least squares and included 1050 observations				Coefficient	t-Statistic	Probability
Dependent variable	SGVAC	Independent variable	EFDC	0.058679	7.996377	0.0000
R-squared	0.999594		GDPSC	0.990214	1007.851	0.0000
Adjusted R-squared	0.999594		D(SPOPC)	-0.09915	-18.8346	0.0000
Akaike info	-2.54587					

critierion				
Schwarz criterion	-2.531694	Durbin-Watson stat	2.005515	

Source: Author's processing and calculation using EViews 9

Table 7. Granger causality test resulting in the 5% probability limit

Pairwise Granger Causality Tests

Date: 08/13/24 Time: 13:42

Sample: 1 1050

Lags: 2

Obs:1048

Null Hypothesis	F-Statistic	Probability
ESC does not Granger Cause SNANSC	3.07874	0.0464
ESC does not Granger Cause IFDC	23.4128	0.0000
ESC does not Granger Cause EFDC	23.0329	0.0000
SPOPC does not Granger Cause ESC	347.354	0.0000
SGVAC does not Granger Cause SNANSC	6.81914	0.0011
SNANSC does not Granger Cause IFDC	13.3009	0.0000
SNANSC does not Granger Cause EFDC	12.9061	0.0000
GDPSC does not Granger Cause SNANSC	6.62754	0.0014
SPOPC does not Granger Cause SNANSC	66.1975	0.0000
SGVAC does not Granger Cause IFDC	31.6604	0.0000
SGVAC does not Granger Cause EFDC	30.6518	0.0000
GDPSC does not Granger Cause SGVAC	11.3021	0.0000
SGVAC does not Granger Cause GDPSC	6.35221	0.0018
SPOPC does not Granger Cause SGVAC	257.938	0.0000
EFDC does not Granger Cause IFDC	12.1567	0.0000
GDPSC does not Granger Cause IFDC	30.78	0.0000
SPOPC does not Granger Cause IFDC	45.4841	0.0000
GDPSC does not Granger Cause EFDC	29.9033	0.0000
SPOPC does not Granger Cause EFDC	43.8225	0.0000
SPOPC does not Granger Cause GDPSC	215.776	0.0000

Source: Author's processing and calculation using EViews 9

5. Conclusion

As can be seen, although the specialized literature abounds in studies on fiscal decentralization, or more specifically on the decentralization of revenues or the decentralization of expenditures, or on local autonomy, on the impact of decentralization, or on increasing the efficiency of the decentralization process, few studies focus strictly on Romania.

Thus, the article aimed to evaluate the impact of the fiscal decentralization of revenues and expenditures on other variables such as: employment at the county level

(expressed as a share of employment at the national level), net average nominal wage earnings at the county level (also expressed as a share at the national level) and the gross added value (GVA) per county (also expressed as a share at the national level). The period of analysis is 1999–2023, the data being panel systematized, and the data sources are NIS of Romania, AMECO, Eurostat, with additions of information including from the World Bank. The results, although encouraging, must be viewed with caution in the sense that where data were missing, an interpolation process was carried out, and where they needed to be expanded, an extrapolation process was carried out. Therefore, the results reflect more of an influence of fiscal decentralization (revenue and expenditure respectively) on gross value added and employment and less on nominal net average wage earnings. In fact, fiscal decentralization (both in terms of revenues and expenditures, more substantially in the case of expenditures) presents negative coefficients in relation to nominal net wage earnings (expressed as county-level shares of average nominal net wage earnings), a fact that indicates that for the increase of these nominal net wage gains fiscal decentralization is not an encouraging factor, on the contrary. It is likely that certain investment programs, with incentives to homogenize earnings, to flatten wage differences at the national level, would be rather desirable for a corresponding boost regarding the net average wage at the regional county level. In the interpretation of the results, successive legislative changes must also be taken into account, which rather shifted the tax burden to low wages, and the transfer of social contributions to the responsibility of the employee starting in 2018 put pressure on average nominal wages and allowed a substantial gap between gross wages and the net ones. That is why the analysis on gross average wages would probably have been much better positively correlated with fiscal decentralization, both in terms of revenues and expenditures.

In addition, if we look at the results of Granger causality we notice that rather the dependent variables influence the independent variables, including the decentralization of revenues and expenditures, so that the fiscal decentralization of revenues and expenditures must be viewed in this limiting context as an impact. At the same time, we notice that there is a link between the decentralization of revenues and that of expenditures, the decentralization of expenditures influencing the decentralization of revenues at the county level in Romania. Therefore, fiscal decentralization is not an eminently positive or negative process; it has advantages and disadvantages, being a tool at the service of central and local authorities to support the local economy, as well as the national one.

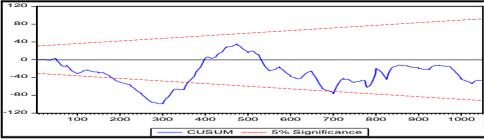
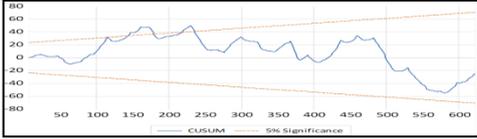
Regarding the limits of the study, it focuses strictly on Romania, it has a relatively limited time series, which could be extended in the future based on the availability of data, the dependent variables can be chosen with a greater granularity and a better connection with fiscal decentralization depending on the availability of data, and the model could be extended to other countries and regions of the world. These aspects, but also many others, will be taken into account in future studies.

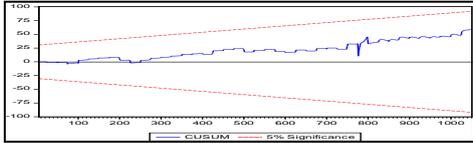
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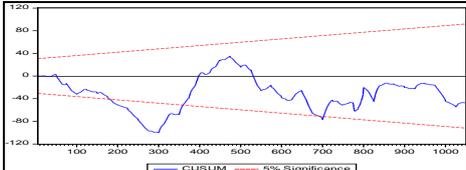
Table 8. Additional tests and robustness checks for fiscal decentralization of incomes at county level

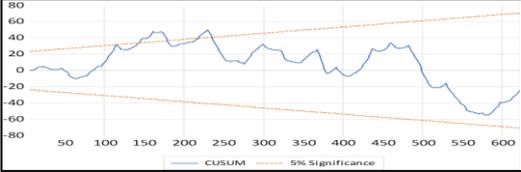
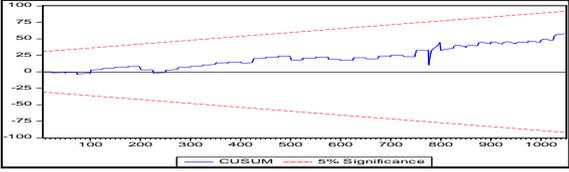
Dependent variable	ESC			
Fact-finding checks	F - Statistics			P-value
Ramsey RESET - Stability test	88.7527			0.0000
Heteroskedasticity Test: Breusch-Pagan-Godfrey	60.6335			0.0000
LM test	684.7078			0.0000
Multicollinearity test for initial equation	Coefficient variance	Centered VIF	Result analysis	Observations
IFDC	0.002335	2.513414	VIF<10	No interconnectivity of independent variables
GDPSC	0.00012	6.099758	VIF<10	No interconnectivity of independent variables
SPOPC	0.000656	4.946532	VIF<10	No interconnectivity of independent variables
CUSUM test				
Dependent variable	SNANSC			
Fact-finding checks	F - Statistics			P-value
Ramsey RESET - Stability test	329,3792			0.0000
Heteroskedasticity Test: Breusch-Pagan-Godfrey	13,51357			0.0000
LM test	3212,414			0.0000
Multicollinearity test for initial equation	Coefficient variance	Centered VIF	Result analysis	Observations
IFDC	0.797926	2.590438	VIF<10	No interconnectivity of independent variables
GDPSC	0.017974	2.747206	VIF<10	No interconnectivity of independent variables
D(SPOPC)^2	0.029529	1.105124	VIF<10	No interconnectivity of independent variables
CUSUM test				
Dependent variable	SGVAC			
Fact-finding checks	F - Statistics			P-value
Ramsey RESET - Stability test	6.55198			0.0106
Heteroskedasticity Test: Breusch-Pagan-Godfrey	142.6129			0.0000
LM test	0.970567			0.03792
Multicollinearity test for initial equation	Coefficient	Centered	Result	Observations

	variance	VIF	analysis	
IFDC	3,98E-05	3,749253	VIF<10	No interconnectivity of independent variables
GDPC	9,63E-07	3,74317	VIF<10	No interconnectivity of independent variables
D(SPOPC)	2,78E-05	1,004078	VIF<10	No interconnectivity of independent variables
CUSUM test				

Source: Author's processing and calculation using EViews 9

Table 9. Additional tests and robustness checks for fiscal decentralization of expenditures at county level

Dependent variable	ESC			
Fact-finding checks	F - Statistics			P-value
Ramsey RESET - Stability test	90.21391			0.0000
Heteroskedasticity Test: Breusch-Pagan-Godfrey	62.96506			0.0000
LM test	681.8178			0.0000
Multicollinearity test for initial equation	Coefficient variance	Centered VIF	Result analysis	Observations
EFDC	0.003167	2.525868	VIF<10	No interconnectivity of independent variables
GDPC	0.000121	6.11503	VIF<10	No interconnectivity of independent variables
SPOPC	0.000656	4.945859	VIF<10	No interconnectivity of independent variables
CUSUM test				
Dependent variable	SNANSC			
Fact-finding checks	F - Statistics			P-value
Ramsey RESET - Stability test	333.932			0.0000
Heteroskedasticity Test: Breusch-Pagan-Godfrey	15.46016			
LM test	3185.296			0.0000
Multicollinearity test for initial equation	Coefficient variance	Centered VIF	Result analysis	Observations
EFDC	1,084496	2,618738	VIF<10	No interconnectivity of independent variables
GDPC	0,01814	2,78088	VIF<10	No interconnectivity of independent variables
D(SPOPC)^2	0,029611	1,111527	VIF<10	No interconnectivity of

	independent variables			
CUSUM test				
Dependent variable	SGVAC			
Fact-finding checks	F - Statistics			P-value
Ramsey RESET - Stability test	6.490679			0.0398
Heteroskedasticity Test: Breusch-Pagan-Godfrey	145.3723			0.0000
LM test	0.923193			0.0110
Multicollinearity test for initial equation	Coefficient variance	Centered VIF	Result analysis	Observations
EFDC	5.38E-05	3.767319	VIF<10	No interconnectivity of independent variables
GDPSC	9.65E-07	3.761807	VIF<10	No interconnectivity of independent variables
D(SPOPC)	2.77E-05	1.00363	VIF<10	No interconnectivity of independent variables
CUSUM test				

Source: Author's processing and calculation using EViews 9



Development of Bank Payment Systems in the Digital Economy of the Republic of Moldova

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ABSTRACT

Payment systems represent an integral part of the banking industry. In the modern world, convenience is essential and because of the increasing requirements of people towards reduced costs, faster processing period, increased security, and effortless operation process, digital banking is becoming more and more popular among population, constituting already a significant component of their lives, what can be explained with 65.3% of customers using online platforms for financial management and transactions. Credit cards, e-cash, internet, mobile, QR code, and e-check payments are few examples of payment methods that a closely associated with people's daily lives nowadays. The efficient and secure operation of payment systems is essential not only for each individual separately, but also for the economy's financial system overall performance. Thus, using robust payment systems is essential to maintain and enhance financial stability. In recent years, there has also been a significant breakthrough in the design of payment systems, especially with regard to the development and widespread adoption of systems that use real-time gross settlement. The object of the study is the development of bank payment systems in the context of digital economy in the Republic of Moldova. The purpose of the research is the analysis of digital payment systems in the banks of the RM, pursuing the activities taken for the sustainable implementation of innovations in the field at national level, assuming the international practice.

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1. Introduction

Payment systems represent an integral part of the banking industry. To this extent, is considered “if money is the lifeblood of modern monetary economies, payment systems are the circulation system”, making it easier for funds to circulate across accounts, allowing both buyers and sellers to perform financial transactions without difficulty.

The need for research was influenced by the changing modern world, where convenience is essential and because of the increasing requirements of people towards reduced costs, faster processing period, increased security, and effortless operation process, digital banking is becoming more and more popular among population, constituting already a significant component of their lives, what can be explained with 65.3% of customers using online platforms for financial management and transactions. Credit cards, e-cash, internet, mobile, QR code, and e-check payments are few examples of payment methods that a closely associated with people's daily lives nowadays.

To this point, digital payment technology has expanded swiftly on a global scale, and its huge power and influence are becoming considerably widespread; 3.6 billion individuals used digital banking globally in 2023 as a consequence. Additionally due to mobile phone increasing usage, the faster global growth of digital banking payment systems is fuelled.

The efficient and secure operation of payment systems is essential not only for each individual separately, but also for the economy's financial system overall performance. Thus, using robust payment systems is essential to maintain and enhance financial stability. In recent years, there has also been a significant breakthrough in the design of payment systems, especially with regard to the development and widespread adoption of systems that use real-time gross settlement.

2. Methodology

The emphasis is placed on modern literature, reflecting the field's growing boundaries, relying on national legislation and procedures, as well as specialized literature, publications, books, and articles. Consequently, the most recent data and discoveries in the field were gathered in order to prioritize current research.

The *purpose* of the paper is to determine and analyse the evolution and premises for innovation of the digital payments in the Republic of Moldova under the tough competition and fast changing world.

In order to achieve the set goal, the following *objectives* were proposed:

- to understand the importance of the digital payment systems for the economy;

- to emphasize the risks and drawbacks in the development of digital payments in the RM;
- to analyse the bank payment systems dynamics and risks in the RM;
- to explore the international practices and trends regarding the payment systems.

3. Importance of Digital Payment Systems for the Economy

Bank payment systems are mechanisms established by banks to facilitate clearing and settlement of financial transactions, involved in comprehensive markets with several kinds of participants: *banks; central banks; money market*.

However, innovation in the payments industry has always been driven by the need for security and cost-effectiveness conducting to the expansion of different types of payment methods, ranging from traditional cash transactions to the latest digital developments. Experts generalize and classify them into two major categories: *large value payment systems*, to handle high-value, critical payments, because the efficient functioning of the financial system and the economy depends on this vital payment system, and *retail payment systems*, handling low-value but frequent high-volume transactions involving individuals, businesses and corporations.

In other words, the importance of digital payment systems for the economy is significant, because they are affecting it in all its aspects, as: *boost the economic growth* - economic activity is stimulated by higher consumer spending and investment; *provide enhanced transparency and accountability* - digital transactions create a digital trail, which facilitates revenue tracking and compliance enforcement by tax authorities; *efficiency and cost reduction* - cutting down on paper work and quicker payment processing; *financial stability* - its capacity to operate securely and effectively even in the event of an economic shock; *financial inclusion* - underprivileged groups now have access to financial services thanks to digital payment methods.

Undoubtedly payment systems have a positive effect, but at the same time they generate certain risks, like: *systemic risk, fraud activity; counterfeiting; cybersecurity*, and here the central bank is taking over the stage, insuring the safety and integrity of payment systems by mitigating the threats.

It is known that customers' wants and needs represent the primary driving force for developing society. Hence, consumers' expectations of quick and simple access to products and services have prompted significant modifications to the payments infrastructure. With a steady growing tendency of the market size of mobile wallet transactions Far East and China lead the world with an increase of 30.36% from 2020 to 2023 followed by North America (59.51%), Europe (136.34%) and Latin America (152.14%) (Statista, 2024a).

Currently, eWallet mobile apps are the most widely used type of fintech service, with billions of consumers worldwide using them and making them a household word (Fig. 1).

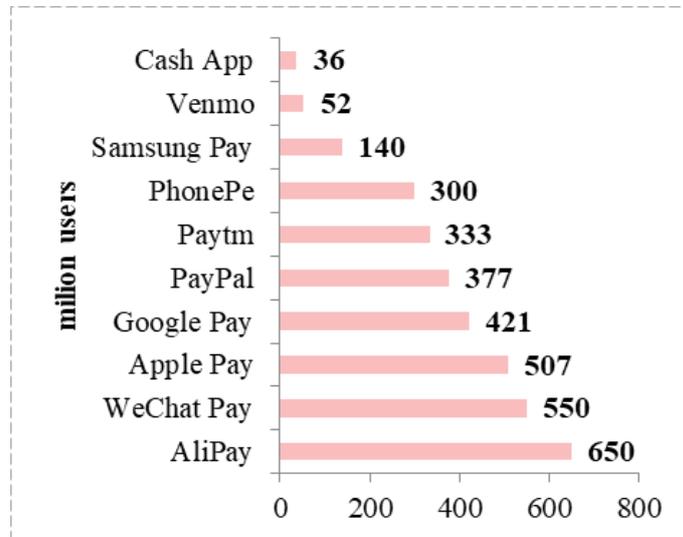


Fig. 1. Mobile payments users by app in 2023, million users
Source: Adapted from Curry (2024)

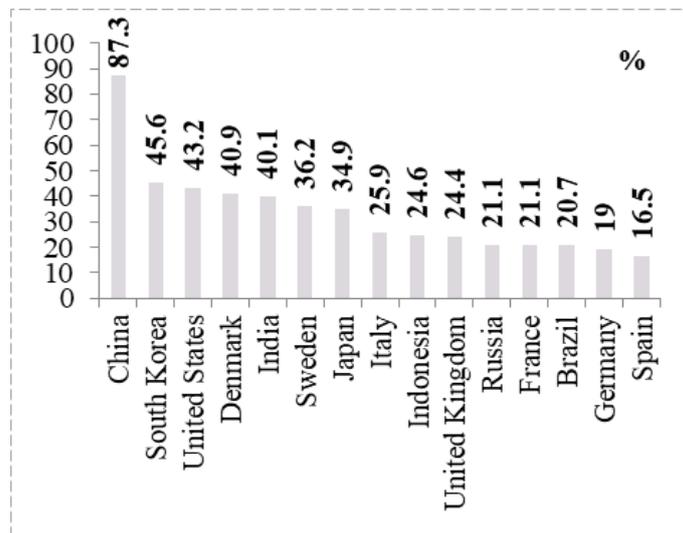


Fig. 2. Mobile payments app adoption by country in 2023, %
Source: Adapted from Curry (2024)

China leads the world in the uptake of mobile payments, with street food vendors, taxis, and buskers all accepting QR codes for payment, with 87.3 % of population using the payment apps for their daily needs, followed by South Korea with 45.6% and United States with 43.2%, respectively. Similar QR code usage is experiencing a spike in adoption in India. Germany and France have much lower adoption rates, in part because banks and mobile payment users are hesitant (Fig. 2).

Due to the increased number of users using the apps for their daily operations, the digital world is changing in order to meet the customers' expectations and provide them with better financial solutions.

4. Structure and Legal Framework of Bank Payment Systems in the Republic of Moldova

Payment systems in the Republic of Moldova represent all the systems, mechanisms, institutions which, on the basis of rules, procedures and arrangements, ensure the initiation, processing, clearing and/or settlement of money transfer operations between participants.

The National Bank of Moldova (NBM) is mandated by Law No. 548/1995 to carry out the following basic tasks: licensing, operating, regulating, monitoring, and supervising the financial market infrastructures in the Republic of Moldova; payment instruments and other payment system components; and the issuance of electronic money (National Bank of Moldova, 1995).

It is required to determine the main components of the payment system to understand how the RM is adjusting to the increasing world trends, accordingly: the Automated Interbank Payment System (AIPS) is the system through which interbank payments in Moldovan lei are made within the Republic of Moldova and is composed of the net settlement system (DNS), real-time gross settlement system (RTGS) and the instant payment system (MIA instant payments); a securities settlement system; payment instruments and Automated Remote Servicing Systems (ARSS) that are an electronic way of remote use of the before-mentioned payment instruments (Fig. 3).

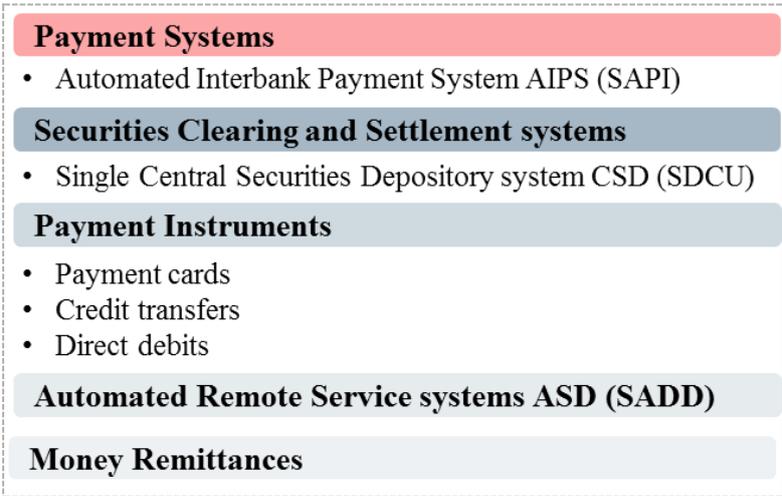


Fig. 3. List of payment and settlement systems and components in the Republic of Moldova subject to oversight by the NBM

Source: Adapted from National Bank of Moldova (2023b)

An important step toward bringing the regulatory framework for payment services even closer to the new EU regulations in this area is the transposition of the European Directive (PSD2) into national legislation, which focuses on open banking, instant payments and adoption of advanced payment message format ISO 20022; and the project Twinning, which helped RM to meet the requirements in order to join the Single Euro Payments Area (SEPA). The accession file was submitted for assessment to the European Payments Committee on 30 January 2024.

5. Bank Payment Systems Dynamics in the Republic of Moldova

In the following is proposed to delve into the analysis of the volume and number of transactions performed within the bank payment systems starting with AIPS.

For analysis one of the systemically important system is proposed, the AIPS, that for the period 2018-2023, registered an increase of 42.85 p.p. in volume of payments performed up to 1.71 billion MDL and of 14.28 p.p. in number of payments up to 14.84 million MDL (Fig. 4).

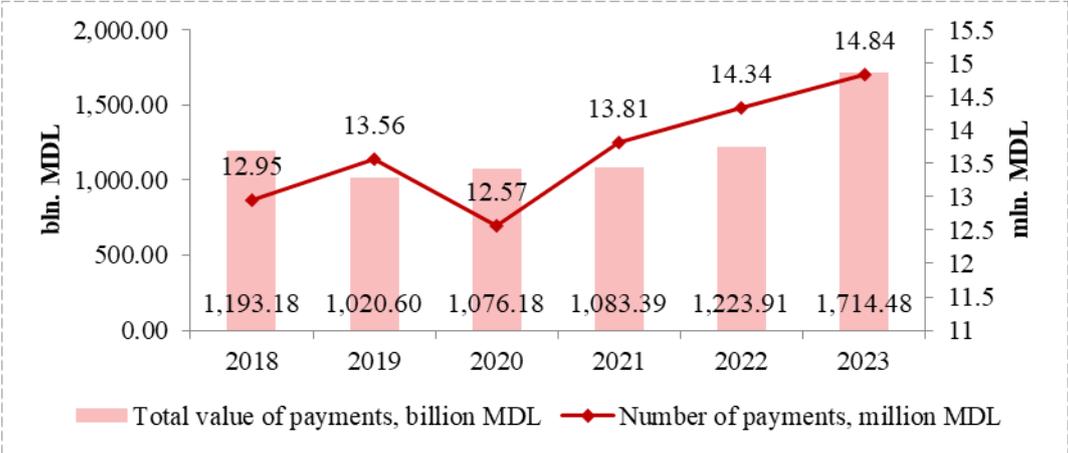


Fig. 4. Total number and value of payments processed via AIPS for 2018-2023

Source: Authors' elaboration based on data presented by NBM in the Reports on the evolution of financial market infrastructures in the Republic of Moldova

In terms of structure, payments made through RTGS component hold almost 85% of the total share of payments performed, but has registered an increase to a less extent, of 29%, than DNS system that represents about 15%, but increased three times from 2018 to 2023, due to highly encouraged online transaction by more and more individuals (Fig. 5).

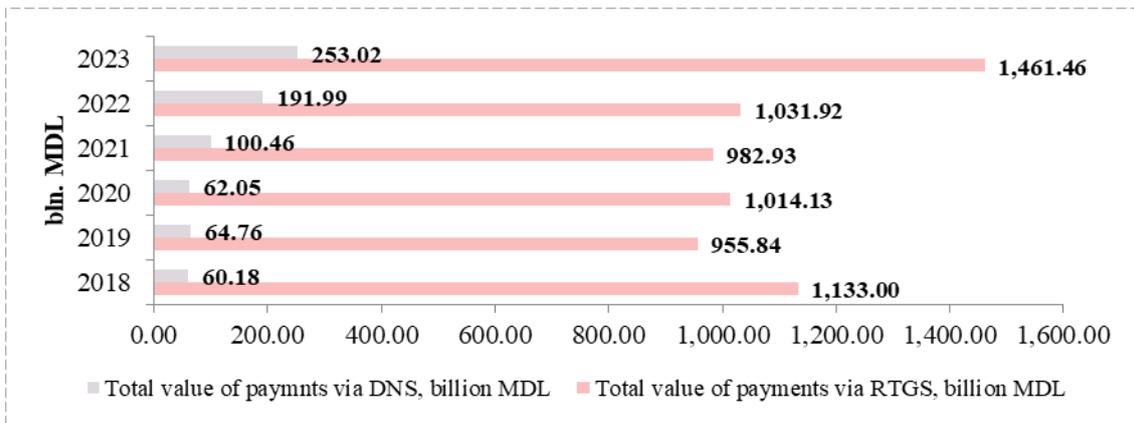


Fig. 5. Types of transactions processed through AIPS for 2018-2023, billion MDL

Source: Authors' elaboration based on data presented in the Reports on the evolution of financial market infrastructures in the Republic of Moldova

The Instant system was launched on March 12, 2024, so for the year 2023 it did not process transactions.

As regards the share of participants in AIPS according to documents initiated on behalf of clients by number of payments for the period 2018-2023 emphasize the CB Moldova Agroindbank (MAIB) on the top with 23.6%, followed by CB Moldindconbank with 21% and BC Victoriabank with almost 13%. Jointly, these three commercial banks constitute almost 58% of total participants in AIPS. Meanwhile, from the point of view of the structure of payments performed by AIPS participants, the following representation can be noted: ordinary transfers of clients - 60.3% of the total number of payments; transfers related to budget payments - 36.6%; other types of payments - 3.1%³ (National bank of Moldova, 2024).

In the Republic of Moldova, cashless payment methods are crucial to the operation of payment systems, especially throughout the stages of payment formation, validation, and transmission. In this context, payment cards, credit transfers and direct debit are accepted as forms of payment.

At the end of 2023, the total number of cards in circulation issued by payment service providers in the country amounted to 3.29 mln., increasing by 70.05 p.p. from 2018.

³ Active card is a payment card used for at least one financial operation during a quarter.

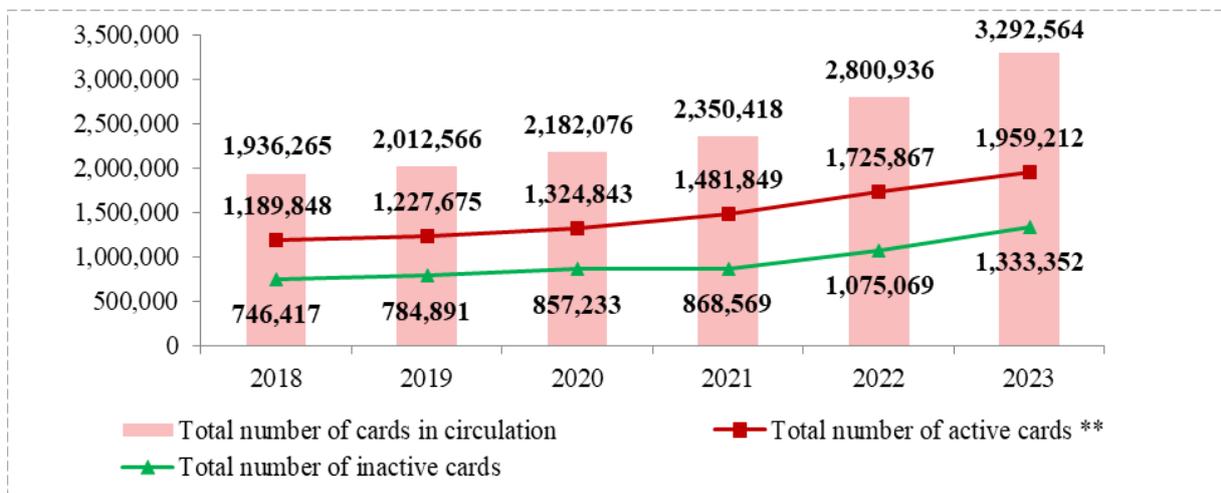


Fig. 6. Total number of cards in circulation by degree of use, 2018-2023

Source: Authors' elaboration based on National Bank of Moldova (n.d.a)

There is also reflected the classification of cards by degree of use. So, during the analysed period an increasing trend is perceived of active cards of 64.67 p.p. in 2023 compared to 2018 and 78.63 p.p. for inactive cards, which is not so good because a lower credit score, account closure, and security problems can result from inactive cards (Fig. 6).

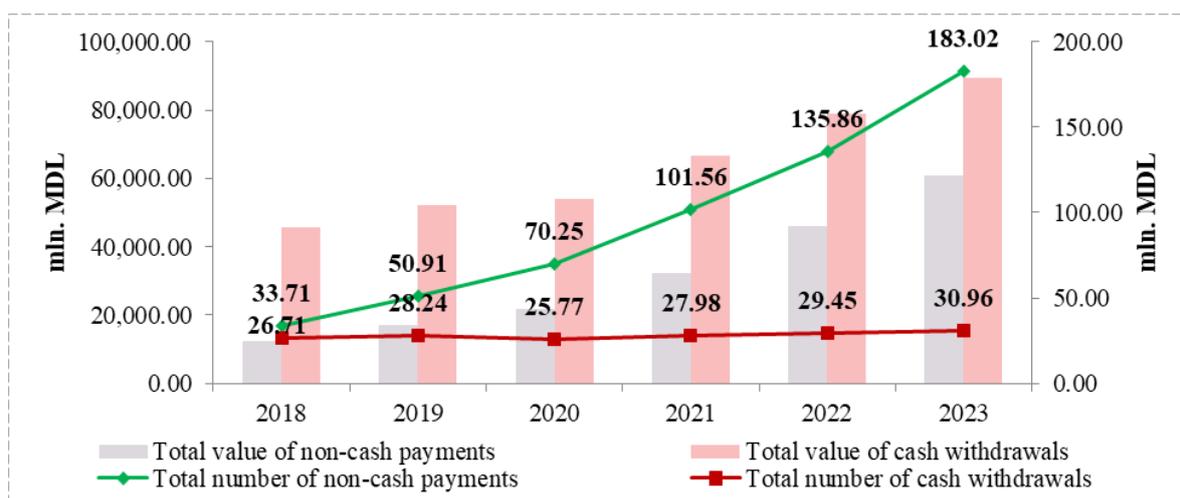


Fig. 7. Number and value of payment card transactions in the Republic of Moldova with cards issued in RM for 2018-2023, million MDL

Source: Authors' elaboration based on National Bank of Moldova (n.d.b)

Regarding the non-cash payments, there is a huge increase in the number and volume of transactions performed, by almost 4 times compared to 2018 up to 60 709.95 mln. MDL in volume of payments, while the volume of cash withdrawals doubled during the analysed period, increasing with 96%, up to 89 456.66 (Fig. 7). Even if the volume of cash withdrawals exceed the volume of non-cash payments

with almost 30 mln. MDL, the fact that people are oriented more towards digital payments is justified by the increasing number of cards under general conditions with almost 14% in 2023 compared to 2018, constituting a share of 41% of the market of payment cards (Fig. 8).

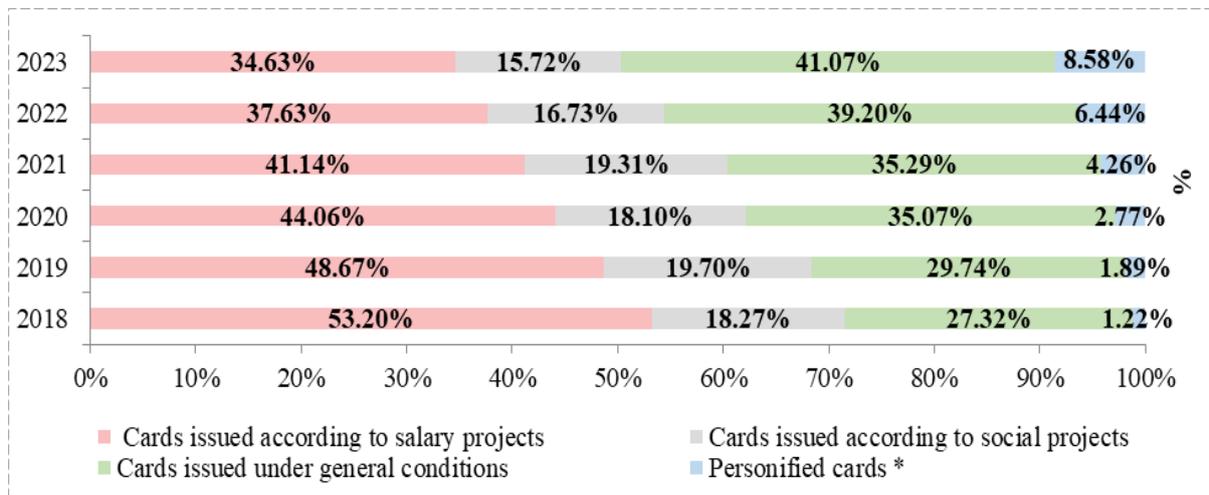


Fig. 8. Share of payment cards by conditions for issue for 2018-2023, %

Source: Authors' elaboration based on National Bank of Moldova (n.d.a)

Meanwhile, the era of hybrid and magnetic stripe cards is passing away, and we observe this from the decreasing trend which brings their share in the total number of issued cards, close to zero at the end of 2023. However, the market get occupied by contactless cards with an increase by almost 50% up to 98% of the market share, and the other 1.18% get occupied by virtual cards, whose position is strengthening (Table 1).

Table 1. Share of cards by type of technical solution, 2018-2023

	2018	2019	2020	2021	2022	2023
Proximity cards (contactless)	49,91%	69,18%	80,15%	92,68%	97,60%	98,33%
Hybrid cards	47,17%	30,35%	19,64%	7,21%	2,19%	0,48%
Magnetic stripe cards	2,75%	0,35%	0,12%	0,02%	0,00%	0,00%
Virtual cards	0,17%	0,12%	0,10%	0,09%	0,21%	1,18%

Source: Authors' elaboration based on National Bank of Moldova (n.d.a)

Customers' preference for speed and technology is a driving force in the banks' rivalry, as well, and the rank of bank providers gives us clarity on the issue.

Regarding the number of cards in 2023, 93% of the market is hold by 4 systemic banks, with CB Moldindconbank on the first place with 39%, followed by CB MAIB with 36%, CB Victoriabank and OTP Bank (Fig. 9).

Almost the same situation is maintained with the number of special devices like ATMs and POS terminals, but at this point CB MAIB is leading the market with 42%, followed by CB Moldindconbank with 27% and CB Victoriabank with 22% (Fig. 10).

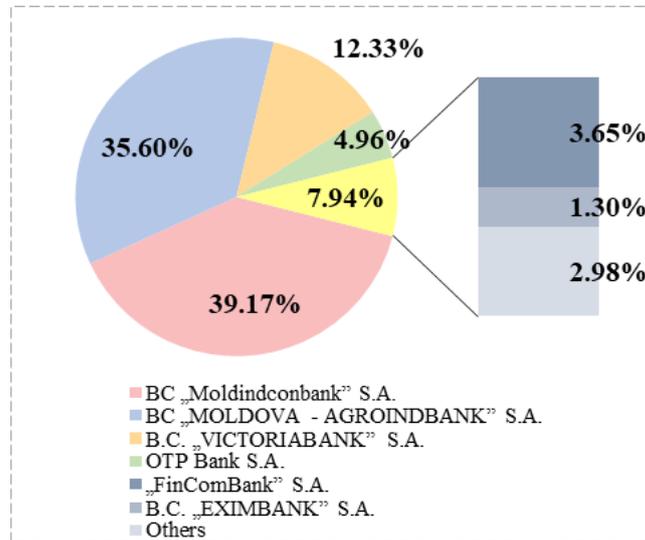


Fig. 9. Number of payment cards in circulation in Republic of Moldova per provider in 2023, %

Source: Authors' elaboration based on National Bank of Moldova (n.d.c)

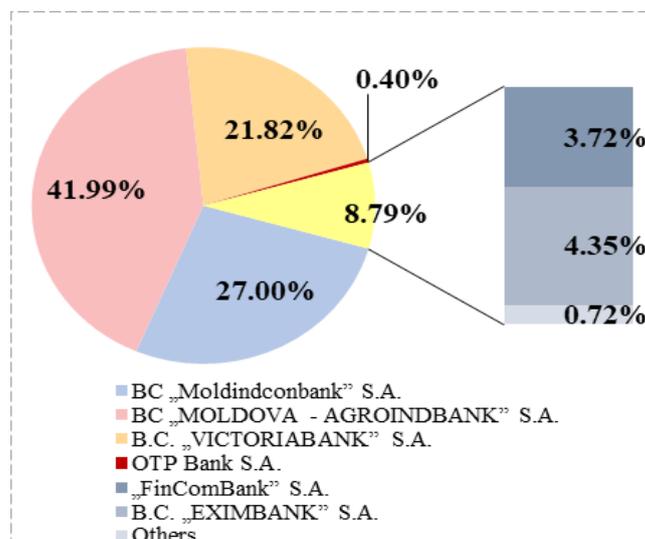


Fig. 10. Number of special devices (ATMs and POS terminals) by provider in 2023, %

Source: Authors' elaboration based on National Bank of Moldova (n.d.c)

Automated Remote Servicing Systems (ARSS) are IT solutions and/or equipment, made available to holders by payment service providers, which allow them, by means of an IT application, an authentication method and a means of communication, to have remote access to the means on the payment account in order to obtain information on the status of the payment account and the transactions carried out, as well as to carry out transactions on behalf of and on the order of the holder on the account of the means on the payment account (National Bank of Moldova, 2024).⁴

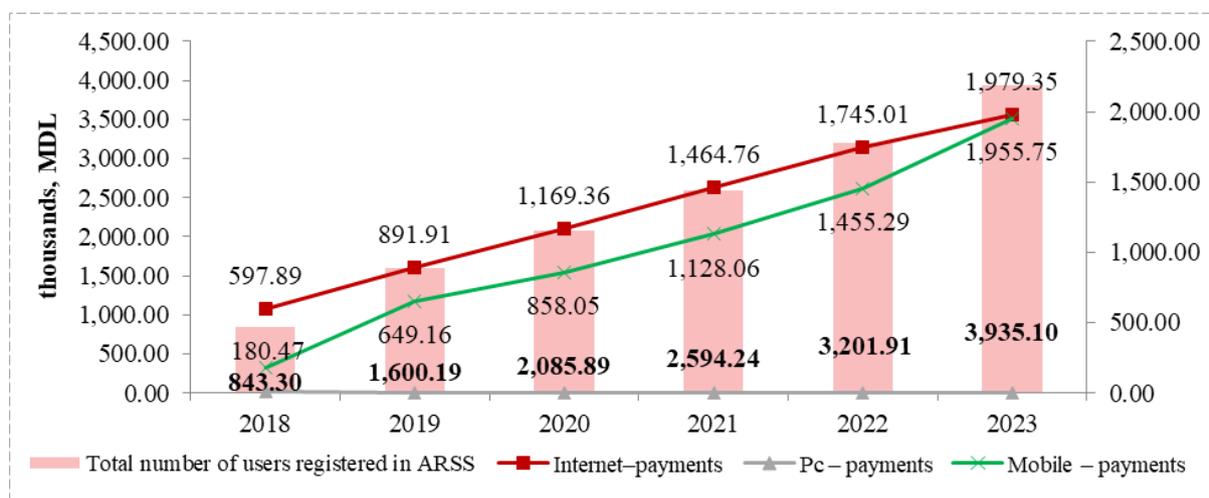


Fig. 11. Total number of users registered in ARSS by type of application/remote access channel used for 2018-2023, thousands MDL

Source: Authors' elaboration based on National Bank of Moldova (n.d.d)

The total number of ARSS holders amounted to 3.935 million users at the end of the 2023, an increase of 366.63 percent compared to 2018 (Fig. 11). The increase in the number of active users was generated by their impressive increase of almost 7 times in number of users of mobile applications, which illustrates that this type of applications is gaining popularity in the Republic of Moldova due to the convenience and flexibility of managing money remotely. Bearing in mind that often one holder uses more than one ARSS, the number of unique holders is substantially lower, but even taking this into account, the figure is quite impressive.

In 2023, 57.1 million transactions were carried out through ARSS, 20.6 percent more than in 2022.

At the same time, during 2023 it was found that payment service providers stopped offering PC-payments systems (holders of PC-payments were only legal

⁴ Personified card is a payment card attached to a payment account, without the information about the client embossed on it.

entities), and during 2021-2023 they also stopped offering telephone-payments systems (National Bank of Moldova, 2024).

6. Evaluation of Risks and Drawbacks in the Development of Bank Payment Systems in the Republic of Moldova

Over the past few years, there has been a significant global shift in the payment systems landscape. The simplicity and flexibility of making retail payments has improved because of technological advancements such as online banking and mobile payments, ascertained by the increasing number of e-commerce platforms by 56.9 percent to 1 199 platforms by the end of 2023, that are accompanied by some risks categories such as: operational, legal, credit, and data integrity risk.

A relevant indicator reflecting the extent of fraud and used in international practice is the ratio of the amount of fraud to the value of payment card transactions, which in comparison to 2018 has decreased by 19.8 p.p. meaning that the bank became more involved in improving the measures for customer protection, but also the population improved the level of literacy in using digital payments (Fig. 12). In this regard, the respective indicator for 2023 amounted to 0.019 percent of the total value of transactions carried out with cards issued in the Republic of Moldova, which is still significantly lower than the European level of 0.028 (National Bank of Moldova. (2023b).

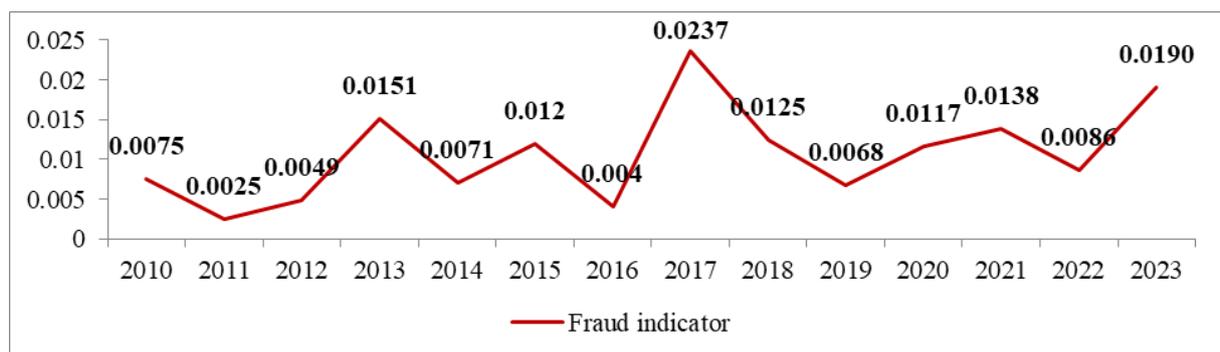


Fig. 12. Payment card fraud indicator in the Republic of Moldova, 2010-2023

Source: Authors' elaboration based on data presented by NBM in the Reports on the evolution of financial market infrastructures in the Republic of Moldova

7. Bank Payment Systems Innovations at International and National Level

With significant changes in recent years that have huge effects on competitiveness and financial regulation, payments are likely the financial activity most impacted by innovations. The adoption of new technology and business

strategies, the rise new competitors, and modifications to the market's structure have all contributed to the payments industry's swift evolution.

In order to make financial and monetary transactions easier, payment and settlement systems are essential. Nowadays, payment systems tend to be more safe, inexpensive, and easily available, and also support growth, financial stability, and financial inclusion.

Secure, dependable, and effective domestic and international payment systems are strongly promoted by the World Bank Group (Bech & Hancock, 2020). Their main efforts are on following:

- development of strong legal and regulatory foundations for payment systems;
- supporting ACH and RTGS systems;
- improvement of retail payment systems for routine transactions as a priority;
- enabling smooth and easy transactions across borders;
- following advancements in cryptocurrency, central bank digital currency, and open banking.

Customers have always been drawn to self-service innovation throughout its history: this trend began with ATMs and is currently being seen in the emergence of chat-bots and mobile banking, and is represented the trend of evolution of cashless payments around the world for 2023, which registers an increase with 56.6 p.p. compared to 2022 (Fig. 13). Also, there is presented the forecast for 2027 which is going almost to double the current figures by that period.

Talking about innovations in payment systems, is to be mentioned first about ISO 20022 messaging standard, meant to be “a common language for financial services industry launched by Geneva-based International Organization for Standardization in 2004.” (Federal Reserve Bank, 2024)

Both instant payments and the general upgrading of payment procedures depend on ISO 20022 messages. They specifically offer corporates and banking systems an easily interchangeable, organized, and data-rich common language. Real-time payment processing and the transition from batch file processing at the end of the day to this capacity are essential developments. Moreover, ISO 20022 communications offer improved analytics potential that may result in the provision of innovative payment services to customers of financial institutions at significant new price points.

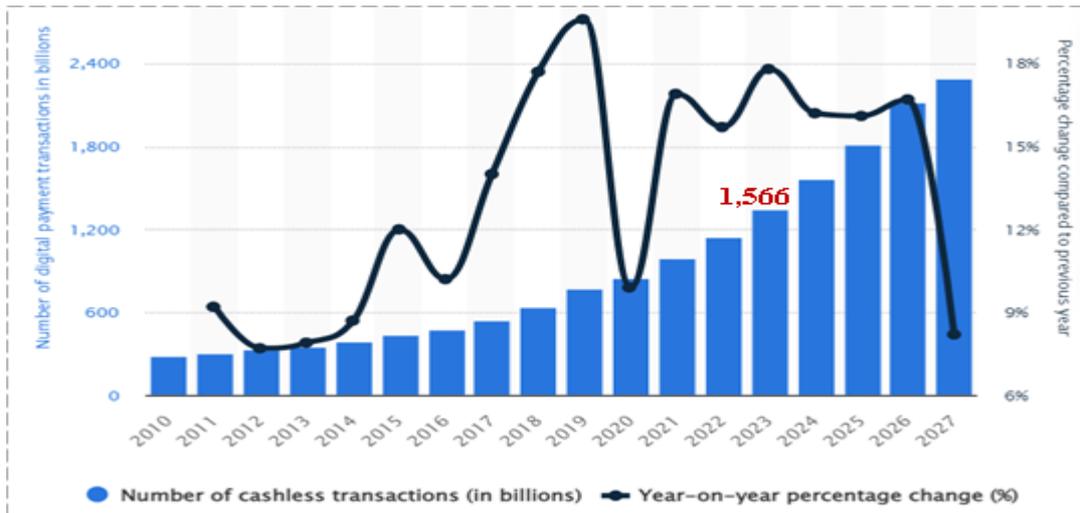


Fig. 13. Number of cashless digital payment transactions worldwide from 2010 to 2023, with forecasts from 2024 to 2027
 Source: Statista (2024b)

Globally, central banks are actively encouraging payment system innovation. These developments have the potential to completely transform business and banking in the future. Further are presented a few of major trends in the domain:

- *Central Bank Digital Currencies (CBDCs)* - a nation's digital version of fiat money, governed by its central bank; is one aspect of innovations in the area, with project like e-CNY (China), *Project Bakong* (Cambodia), and *e-krona* (Sweden);
- *Instant payment systems* which due to the increase in value, increased as well the number of mobile payment apps, like: UPI, PIX, EBS, Faster Payments, MIA.

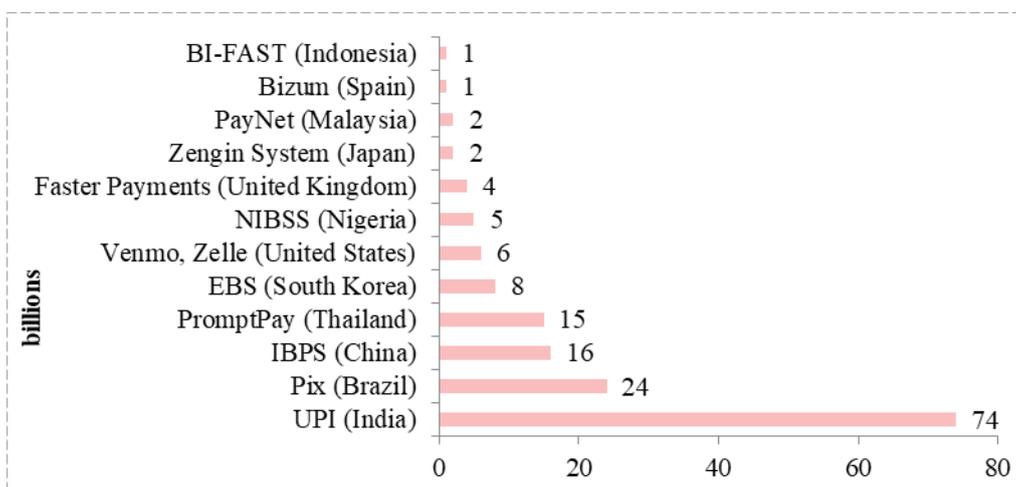


Fig. 14. Brands with the highest number of real-time (instant) payment transactions worldwide in 2022
 Source: Statista (2024c)

In the Asia-Pacific region (Fig. 14), real-time payments were widely used: in India, transactions were nearly five times greater than in China, because RTP is integrated into India's Unified Payments Interface, from which use the country benefits. India tops an enlarged ranking of the number of quick payments made in each country, with a figure larger than the total for 43 other nations. By 2027, India is anticipated to maintain this position. Applications that support A2A payments include UPI in India launched in 2016 and PIX in Brazil launched in 2020, which combined saw close to 100 billion transactions in 2022.

- Other innovations: *biometric identification*, *blockchain* (makes it possible for accounting and control procedures to be digitalized, and no one entity owns them. They are available to everyone and cannot be controlled. This reduces costs and speeds up transactions, according to supporters. Additionally, transactions become less dangerous because credit history and asset provenance are recorded as unchangeable elements); *cross-border payments* (the area where the block chain is starting to have an influence: the B2B Connect network from Visa, Liink from JPMorgan Chase, and IBM Block chain World Wire are a few of them) (World Economic Forum, 2023); *SWIFT GPI* (it aims to enhance transparency and efficiency. It is built on top of already-existing messaging protocols and bank payment processing systems), *PaaS Model* (a cloud computing model that provides customers a complete cloud platform, hardware and software infrastructure for developing, running and managing applications without the cost, complexity and inflexibility that often comes with building and maintaining that platform on premises), *open banking* (allows customers to share their financial information securely and electronically with other banks or other authorized financial organizations such as payment providers, lenders and insurance companies); and with the coming of the *Internet of Things*, open banking will become even more useful (when combined, these technologies may allow your smart home to automatically monitor your energy use and switch utility companies to ensure you are receiving the best possible offer).

A SWOT analysis is helpful for delving deeper into the payments chain research to get strategic management data. In fact, it gives a comprehension of the fundamental skills of payments.

Table 2. SWOT analysis for the payments industry

Strengths	Weaknesses
<ul style="list-style-type: none"> ▪ Diversity of technological and digital solutions. ▪ Robust ecosystem - a complicated web of actors, tools, procedures, and laws that makes it easier to trade products and services for cash. ▪ Worldwide network - to minimize the procedure and keep cheap transaction costs. ▪ Broad customer base. ▪ Existing infrastructure. ▪ Instant payments. 	<ul style="list-style-type: none"> ▪ Complex systems - incorporate various parties, transactions, data, security, and laws. They must cope with ambiguity, unpredictability, and change in their surroundings and needs. ▪ Protection systems against fraud and risk activities. ▪ Regulations and compliance. ▪ High reliance on the connectivity. ▪ Not able to quickly innovate. ▪ Processing costs.
Opportunities	Threats
<ul style="list-style-type: none"> ▪ Open APIs facilitate more interoperability in the establishment and completion of payments for a wide range of use cases by account service providers. ▪ Foster data sharing and connectivity between participants. ▪ New alliances, or connections between various suppliers that enable them to offer their customers the best payment processing services. ▪ Quick digital shift in the postpandemic period. 	<ul style="list-style-type: none"> ▪ Development of a payment network takes time. ▪ New opportunities and developments in technology. ▪ Currency fluctuations. ▪ Fierce competition. ▪ Regional normative disparities. ▪ New competitors offering services at reduced costs - non-bank suppliers. ▪ Hackers steal money, valuables, rights, or private information.

Source: Authors' elaboration based on the information presented in the research

The SWOT analysis performed identified every opportunity that the participants in the payments chain should take advantage of to increase their market share and establish a competitive edge. The external causes that could cause these performers to quit the profession, on the other hand, are all dangers. Strengths and weaknesses might be considered each player's key competencies when conducting an internal review. First, the organization's resources aid in achieving the goals, which, for the players in the payments chain, are either staying in the business or growing the network through vertical integration. The second is weakness, which refers to organizational constraints or flaws that prevent it from achieving its goals. Weaknesses in the payments system might cause participants to overlook the demands of new clients and to leave the market.

In this dynamic landscape, central banks play a pivotal role in shaping the future of payments, ensuring security, efficiency, and accessibility for all.

8. Security of Digital Payments: Best Cutting-edge Practices

The financial transaction landscape has changed in an era of fast technological innovation and digitization as we observe in the paragraphs above. But as these online payment options gain popularity, industry participants are becoming more aware of the risks that go together with this development. Numerous cybersecurity issues have also emerged as digital payments have grown in popularity. The possibility of fraud, data breaches, and cyberattacks has increased dramatically as more transactions take place online.

The main actions might be taken are:

- *strict access control* - this entails imposing password regulations, employing multi-factor authentication, and limiting the amount of staff members with access to payment systems;
 - *fraud detection systems* - the systems analyse real-time payment data using sophisticated algorithms to spot possibly fraudulent activity;
 - the businesses need to stay current with all applicable *regulations* regarding payment security in order to understand the obligations of laws like the AML and PCI DSS;
 - *ensuring the PCI DSS* - it gives businesses a comprehensive set of rules they can apply to improve the security of customer credit card information. To comply, one must use secure firewalls, encrypt cardholder data, update software often, and limit access to devices and systems, among other 12 requirements. Additionally, it conveys to customers that businesses value the security and privacy of their data, which may strengthen bonds with them;
 - *train employees* - regular staffs training sessions are a good way to make sure they are knowledgeable about the most recent security best practices. Workers need to be taught how to create strong passwords, spot potential scams, and respond to cybersecurity incidents;
 - *3D Secure* - it improves security protocols for both buyers and sellers;
 - *tokenization* - replacing sensitive data with unique identification symbols that retain all the essential information about the data without compromising its security.
- (Sinha, 2023)

9. Conclusion

The see digital payments as a continuous innovating and improving area of modern world due to increasing requirements of people towards reduced costs, faster processing period, increased security, and effortless operation process.

Therefore, the main areas of interest for modern payment systems are e-money, quick payment services, open banking, tokenisation, QR codes, central bank digital currencies and the development of cryptoasset policies.

Knowing that payments are an integral part of the economy their non-processing, can bring the economy to a complete standstill and the Central Bank is responsible for maintaining the safety and integrity of payment systems, by mitigating the threats.

Due to technological advancements such as online banking and mobile payments the bank payment systems are widely exposed to risks of development and the four main risk categories that are considered are credit, liquidity, legal, and operational risk. Special emphasis is paid to security challenges, particularly fraudulent behaviour, given the potential significance of security for user confidence in retail payment systems in general and quick payments in particular.

What about the RM, in order to get more digital and improve the payments, there are some recommendations propose, and:

- First is to ensure the security of consumer data through tokenization, that must be integrated and use in payments.
- Cross-border payments is another suggestion in order to reduce the implication of correspondent banks that imply huge fees and greater period of time to perform them.
- Due to the fact that the use of digital payments is transforming customer behaviour, one method is the incorporation of digital payments into social media sites to perform payment directly.
- By adding biometric authentication, digital payments could be made more efficient, especially the voice recognition method, would help to guarantee that only the authorized user is able to make a payment by adding an additional layer of protection to the transaction.
- The implementation of QR code payments due to its simplicity, would be another solution, because it is easy to use and does not require any specialized equipment.

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A Review of Economic Data on the Capitalization of Agricultural Goods from Small-Scale Agricultural Holdings in the Kingdom of Romania after 1918

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ABSTRACT

The economic effects of the First World War included various direct and indirect dimensions. The war resulted not only in material and human loss but also in significant restructuring of economic flows and mechanisms; further displacements and reorganizations arose from the new political and economic order established post-1918. Discussing the direct impact of the war as well as the economic fallout from the 1918 Union of the historical provinces of Romania is necessary in this specific instance. Historiographically, it is important to acknowledge that the immediate repercussions of the war have frequently been examined, whereas historians have typically avoided scrutinizing the economic ramifications of the “Great Union” and have been even less inclined to regard the war's consequences as a cost of the 1918 Union. The significant endeavors to establish a state including all Romanian historical regions during the First World War were driven by national goals and should stay untainted by secondary economic factors. Historians' inclination to attribute the negative features to the conflict while deeming the positive ones as beneficial outcomes of the “Great Union” is, however, less legitimate. Had Romanian society and political entities not truly pursued the reunification of Romanian territory in Austria-Hungary with the “Old Kingdom”, Romania would not have engaged in the war in 1916. Therefore, we consider that it is justifiable to include the economic implications of the war as integral to the comprehensive assessment of the Union of 1918.

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1. Introduction

Dedicated authors who have deepened/added value/further investigated the valuable content of interwar sources often present more comprehensive and intricate analyses. These assessments typically place the socio-economic development of the Kingdom of Romania between 1918 and 1939 within the broader European context, with the final statistical evaluation often being rather unfavorable. Therefore, it should come as no surprise that numerous academics, particularly foreign historians, who have provided a variety of reference works on Romania, tend to be more critical of the preference to romanticize Romania during the interwar period. As a result, in their most comprehensive and well-documented scientific works, critical and nuanced assessments predominate, often leading to unfavorable conclusions and findings. The rationales for this idealized representation of the interwar period are extensive (Murgescu, 2010, pp. 205-242; Axenciuc, 1997, pp. 393-427; Constantinescu, 1997, pp. 387-454). The appropriate investigation and clarification of this topic should, according to several committed researchers, primarily rely on composite indicators of macroeconomic development, specifically Gross Domestic Product (GDP) per capita and/or National Income (NI) per capita.

For a part of the interwar period, data and information on the annual advancement of GDP per capita is accessible in the reference work by A. Maddison (Murgescu, 2010, pp. 205-242). The data computed by A. Maddison significantly refutes the portrayal of robust economic growth in interwar Romania, both regarding the general trend and the evaluation of specific years as either economically/socially favorable or unfavorable. An initial response - particularly among those skeptical of historical statistics - might be to dismiss these figures as artificially derived from overly complex calculations (initially the nominal reconstruction of gross domestic product per capita, followed by the determination of coefficients for recalculation at purchasing power parity, and subsequently the readjustment of all data utilizing these coefficients), thereby rendering them susceptible to errors. Before dismissing the data produced by A. Maddison, one ought to compare it with information from other authoritative sources, derived from primary data series that are independent of Maddison's and computed using alternative methodologies (Maddison, 1995, p. 200; Maddison, 2003, p. 200). Interestingly, the works of P. Bairoch and D. Good, despite lacking annual estimates, provide a perspective that aligns with A. Maddison's calculations and indicate the decline of Romania's relative standing in comparison to the global context. Comparisons with the US are impacted by the fact that they did significantly better than Europe during the First World War and in the 1920's but then had a much more severe decline during the "Great Economic Crisis" that

occurred between 1929 and 1933 (Good & Ma, 1999, p. 113). The same may be stated about the steep decline that Romania experienced in comparison to the global average between 1913 and 1929, which was brought to light by the statistics collected by A. Maddison. As a result, many researchers argue that comparisons with the European average are more pertinent when it comes to evaluating the overall economic performance of Romania during the interwar period (Maddison, 1995, pp. 200, 228; Bairoch, 1976, p. 297; Good & Ma, 1999, p. 111; Murgescu, 2010, p. 215).

This conclusion regarding the precariousness of the economic situation in “Greater Romania” is supported by other works that concentrate on international comparisons at the end of the interwar period since these works reinforce the conclusion. In light of this, M. Harrison reviewed the data and methodology used to calculate the GDP per capita in Eastern European countries for the year 1937. He then conducted an in-depth analysis of the various estimates and compared the findings with the GDP per capita in the UK. The GDP is a metric that emerged very late in economic statistical analyses (Harrison, 1994, p. 253). During the interwar period, another metric employed was National Income (NI). However, we lack comparable data on the NI for an extended period, and data from other European nations is also scarce, requiring a comparative analysis of the late interwar period. This approach is warranted by the consensus that 1938 represents the zenith of “Greater Romania's” economic development, hence an analysis of this year suffices for a synthetic evaluation of interwar Romania's economic progress. The figures presented in the various works, all denominated in US dollars adjusted to the value of 1938, exhibit considerable variation - some sources indicate that in Romania in 1938, the NI per capita was between 65 and 70 dollars, while others report figures of 70 to 75 dollars, 81 dollars, 90 dollars, 94 dollars, 107 dollars, or even 110 dollars (Kaser & Radice, 1986, pp. 31-532; Berend et al., 1977, p. 99; Teichová et al., 1989, p. 890; Marcu, 1979, p. 361; Olaru, 1999, p. 260). As noted by many authors “*The Romanian Historical Treaty*” offers limited assistance, after accurately stating that the GDP per capita was 76 dollars, it promptly qualifies this evaluation by including the phrase: “According to other sources, the NI per capita in Romania was 100 or even 110 US dollars” (Berindei, 2001, p. 123). In 1938, the NI per capita in Romania and various European nations (in U.S. dollars) was as follows: United Kingdom (\$378), Germany (\$338), Denmark (\$318), Belgium and Luxembourg (\$285), Ireland (\$248), France (\$237), Czechoslovakia (\$174), Italy (\$127), Hungary (\$111), Poland (\$104), Greece (\$80), Romania (\$76), Bulgaria (\$68), Yugoslavia (\$68), with an average for 20 European countries at (\$222) (Dobre, 1996, pp. 37-38, 138-139; Murgescu, 2010, p. 217).

In addition to such methodological observations, the data provided by author Gh. Dobre substantiates the considerable magnitude of the disparities between Western and Central Europe. The discrepancies in his table are sharper than those observed in the one provided by M. Harrison. The distinction arises from the divergence in the indicators employed (GDP. and NI) and the methodology adopted by M. Harrison, who initiates his analysis with physical indicators subsequently adjusted to Purchasing Power Parity (PPP) (Harrison, 1994, p. 253). In contrast, Gh. Dobre establishes equivalences grounded in the exchange rate of the corresponding year. It is widely acknowledged that applying indicators in PPPs tends to diminish the disparities between the macroeconomic indicators of various nations. In examining the hierarchy among nations, discrepancies emerge regarding the standing of Yugoslavia, as the data employed by Gh. Dobre diverges from that presented in other authoritative sources, leading us to consider it inadequately substantiated (Dobre, 1996, p. 138).

Indeed, the disparities between Romania and numerous European nations expanded during the interwar period. This assertion is further substantiated by the calculations conducted by V. Axenciuc pertaining to the National Wealth (Axenciuc, 2000, p. 311). While the table compiled by V. Axenciuc regarding a comparative analysis of Romania's national wealth per capita concerning other nations encompasses data from a limited selection of countries, the overall depiction remains distinctly evident (Axenciuc, 2000, p. 273). Except for France, which suffered considerable devastation during the First World War and experienced a rather dismal economic trajectory in the interwar years, Romania's standing deteriorated in relation to all the other states examined. The concept of NW serves as a metric that reflects the stock of accumulated wealth in comparison to present activities. The table previously mentioned underscores the benefits experienced by nations that maintained neutrality during the First World War or successfully mitigated the adverse impacts of the conflict. A further synthetic table put together by V. Axenciuc provides an in-depth perspective on the progression of Romania's National Wealth from 1912/1914 to 1938/1939 (Axenciuc, 2000, p. 273). The NW of Romania (1912-1939) is expressed in gold lei per capita. It is essential to draw several conclusions - the relative stagnation of NW per capita throughout the period from 1914 to 1938 can be significantly attributed to its decline during the First World War. However, if we focus solely on the years from 1920 to 1938, the dynamics appear somewhat more favorable, with an increase of 29% in gross assets and 68% in net assets over 18 years, albeit still trailing behind the growth rates observed in other European nations. The subpar performance of the Romanian economy can be attributed to the decline in the

agricultural sector's value, which was influenced by a reduction in production stemming from the war and the agrarian reform of 1917-1921, as well as a subsequent drop in agricultural prices following 1925-1926. Notable advancements were realized in the sectors of industry and commerce, particularly within the field of construction financing and long-lasting/durable consumer products. In this setting, it is imperative to consider V. Axenciuc's insightful observation: "The substantial increase in accumulation is due to the growth in the volume of construction, both quantitatively and qualitatively, especially in the urban environment, as well as the inclusion of an important heritage of civil and military public constructions, not estimated in previous periods" (Axenciuc, 2000, p. 281). Thus, a portion - likely minor - of the growth may be ascribed to modifications in the inventory system of the construction fund. V. Axenciuc highlights the "non-optimal ratio between the active and inactive funds of the National Wealth, which adversely impacted the efficiency of the national economy and the rate of accumulation" (Axenciuc, 2000, p. 280), as well as the withdrawals of credits and international capital, which subsequently undermined the development potential of interwar Romania. According to some authors the data and observations provided previously adequately convey V. Axenciuc's conclusion that notwithstanding various endeavors and certain accomplishments, interwar Romania "did not manage to transcend the lowest tier of European nations characterized by minimal national wealth per capita" (Axenciuc, 2000, p. 281). Nevertheless, comprehending the underlying mechanisms of this failure calls for a more nuanced discourse (Murgescu, 2010, p. 221).

It is difficult to summarize the human casualties and material destruction caused by the war in statistics, as the extent of the damage was considerable. Indeed, it is recognized internationally that even the human losses, which are easier to tally than the economic damage, can only be approximated. It is estimated that the human losses of the "Old Kingdom" included around 250,000 military and 430,000 civilian deaths, in addition to a shortfall of over 400,000 newborn babies missing during the war years. It is worth noting that the deficit of 14% of the pre-war population is exceeded in Europe only by Serbia and Montenegro with 31.3% and Russia with 18.5% (Fischer & Armengaud, 1987, pp. 10-221). However, it should be acknowledged that the deaths in Russia cannot be distinguished from those in the civil war. It is evident that these statistics encompass not only those who perished in the conflict but also those who succumbed to the devastating epidemics of typhus and "Spanish influenza" that emerged at the war's conclusion (Kirițescu, 1989, p. 496; Murgescu, 2010, p. 222). It is important to consider that a significant number of individuals were left with disabilities or other lasting effects from the war, which subsequently

diminished their economic potential. The assessment of material damage following the war amounted to 31 billion gold lei (Axenciuc, 1997, p. 222). The figure is substantial, and verification proves to be elusive. Furthermore, in the aftermath of the war, there was a prevalent inclination to exaggerate the extent of destruction to secure greater compensation, with Romania being no exception to this trend. However, setting aside any overstatement, the extent of the destruction and the losses incurred were significant. The devastation caused by the conflict was further exacerbated by the disruption of economic systems and the occupation of approximately two-thirds of the “Old Kingdom's” territory by the Central Powers from 1916 to 1918. Romanian historians have emphasized the requisitions executed by the occupying authorities, cataloging 1.14 million tons of petroleum products, 2.6 million tons of cereals, 1.4 million cattle, 6.4 million sheep, over 1 million pigs, various foodstuffs, timber, salt, coal, tobacco, fodder, hides, and a significant quantity of industrial machinery. In Romanian historiography, there is a tendency to consider the figure of 31 billion gold lei as rather small, suggesting that the extent of destruction may have been even more significant (Kirițescu, 1989, p. 499; Puia, 1988, p. 341), who discuss the calculations conducted by G. M. Dobrovici in 1925. A rather useful analysis of these methodologies can be found in Axenciuc's book published in 2000, at page 202, note 2.

One of the repercussions of the war was inflation, along with a broader decline in the monetary stability that had previously defined the “Old Kingdom” Romania exemplifies this trend, as the majority of the warring nations opt to support their military endeavors through inflationary measures. In the instance of Romania, nonetheless, two complicating factors emerged. The initial issue pertains to the depletion of gold reserves - approximately 105 tons, estimated at 315 million gold lei, transferred to Russia during the conflict and subsequently seized by the newly established Soviet regime following the October Revolution of 1917 (Axenciuc, 200, p. 200). The second aggravating factor was the policy enacted by the German occupation authorities during 1917-1918, which implemented extensive and unsubstantiated occupation laws, thereby exacerbating the inflationary spiral. It is essential to note that inflationary pressures began to emerge during the neutrality period (1914-1916), and were further exacerbated by the issuance of banknotes, requisition bills, treasury bills, and other forms of payment by the Romanian authorities seeking refuge in Moldova during the war. Consequently, by the conclusion of the war, approximately 4.6 billion lei were in circulation, contrasting sharply with a money supply of merely 0.5 billion at the war's onset. Notably, German emissions via the Romanian General Bank amounted to 2.1 billion lei, indicating that the inflationary pressures

experienced during the years 1916-1918 were largely attributable to both the German occupation authorities and the Romanian government (Kirişescu, 1997, pp. 118-131, 89-118, 134, 127, 288). The challenges of integrating the new territories post-1918 further exacerbated inflation. Typically, these issues are categorized under the appealing designation of “monetary unification”. Indeed, the Romanian state was required to convert into lei the Russian rubles and Austro-Hungarian crowns that were in circulation within the territories restored to Greater Romania. At this juncture, some authors consider that it is advisable to refrain from delving into the intricate specifics of this operation (Murgescu, 2010, p. 222-223). It should be noted that the financial expenditure incurred by the Romanian state amounted to over 5.5 billion lei, comprising 1.2 billion lei allocated for Russian rubles and 4.3 billion lei designated for Austro-Hungarian crowns. Concerning the overall budget expenditure of 7.4 billion lei during the fiscal year 1920/1921, the undertaking seems substantial (Kirişescu, 1997, p. 288). This endeavor was essential for the sustainable integration of the regions that were formerly part of Russia and Austro-Hungary. Conversely, as historians have observed, the majority of the crowns were not exchanged by the inhabitants of the newly acquired territories, but rather by Romanian banks and various speculators with advantageous ties to the political elites in Bucharest. This provides a more nuanced understanding of the costs and beneficiaries associated with the monetary unification of 1920-1921 (Kirişescu, 1997, p. 287-295). Similar to the conflict, the process of monetary unification was underpinned by significant inflationary challenges. Despite a deceleration in the growth rate of the money supply post-1922, the challenges of economic recovery, coupled with strained relations with international capital that hindered access to foreign credit, resulted in the continued depreciation of the leu until 1925 (Axenciuc, 1997, p. 307). It was only in 1929 that the currency achieved stabilization (Axenciuc, 1997, p. 303-310).

Certainly, the economic balance sheet of the “Great Unification” encompasses more than merely the financial expenditures associated with the unification process. The territory of Romania expanded from 137,000 km² to 295,000 km², while its population grew from 7.7 million to 15.7 million. The economic potential of the territories integrated into the Romanian state was significant, albeit inconsistent. In summary, the integration of the historical provinces in 1918 resulted in a significant enhancement of the economic capacity of the Romanian state, alongside a diversification of this capacity and an expansion of opportunities for the advancement of the internal division of labor. Conversely, the newly established borders interrupted previously established economic exchanges, adversely affecting

particularly the western regions of the country that had previously been economically aligned with Budapest and Vienna (Axenciuc, 1997, p. 225-231).

The involvement in the First World War and the achievement of the Unification of 1918 were underpinned by political reasoning and yielded economic advantages for the Romanian state as a collective entity. However, they exacted a considerable toll on the average citizen, significantly diminishing both their accumulated wealth and standard of living, alongside the profound human suffering inflicted by the conflict. In light of the prevailing standards of the era, wherein the collective interests of the state and nation were deemed paramount to those of the individual, the political class's decision to engage in warfare in 1916 seems to hold a degree of justification (Boia, 2012, p. 125). Considering the criteria of economic rationality prevalent in contemporary society, one might conclude that it represents a significant historical misjudgment. Romania's involvement in the First World War exacerbated its circumstances in comparison to both neutral nations and other belligerent states, which, for a variety of reasons, experienced less severe repercussions. This deterioration was not confined to Romania alone. Rather, it typified the broader trends affecting Eastern and South-Eastern Europe as a collective entity (Good & Ma, 1999, p. 136; Teichova, 1997, p. 14). Nonetheless, the decline in output was notably more pronounced in Romania compared to the majority of countries within the region. The pace of recovery varied significantly across different regions, with some experiencing a more rapid resurgence while others endured prolonged effects.

Ultimately, there are certain domains where it proves challenging, if not entirely unfeasible, to ascertain a specific moment when the detrimental impact of the conflict was mitigated. In the realm of finance, stabilization was officially attained in 1929. However, the value of the Romanian leu remained significantly diminished compared to pre-war levels. This precarious stability endured for merely seven years, as inflationary trends reemerged in 1936 (Axenciuc, 1997, p. 307). The challenge of evaluating the First World War's influence on the rise of economic nationalism and the subsequent detrimental climate for international economic collaboration is particularly complex. H. L. Roberts pointed out the “general stagnation” of agriculture, resulting, in his opinion, from the interaction of several factors, such as demographic pressure, which canceled out the effects of the gross growth in per capita indicators, the decline of the European grain trade and especially the fall in the price of wheat after 1929, the disadvantage of agriculture in domestic trade, capital allocation, and Romanian state policy, and the “residues” of the pre-1914 landowning system, including the fragmentation of holdings, the

extensive system of cereal cultivation and archaic forms of agricultural tenancy (Roberts, 1969, p. 83). The review of interwar Romanian agriculture must occur on two separate levels. The evolution of physical production must be analyzed alongside the influence of price fluctuations on the value of agricultural output and its contribution to the overall performance of the Romanian economy during the inter-war period. The fall in the initial years of the inter-war period was partially attributed to the temporary reduction of cultivated lands. Nevertheless, the predominant factor affecting overall output levels throughout the inter-war period was the trend in yields per hectare.

In a technologically deficient agricultural sector, these yields were very susceptible to fluctuations in weather and natural conditions. Yet, multi-year averages distinctly indicate a decrease in yields during the early inter-war years, with only a partial recovery during the remainder of the inter-war period. The decrease was most pronounced for the primary cereals, namely wheat, maize, and barley, as average yields per hectare after the inter-war period continued to fall short of pre-World War I levels. International comparisons distinctly illustrate the degree to which Romanian agricultural productivity fell short during the inter-war period (Axenciuc, 1992-2000, pp. 516, 521, 645, 654). The decrease in yields per hectare has resulted in an expansion of the productivity gap with industrialized European nations and a setback relative to Romania's mostly agricultural neighbors (Bulgaria, Yugoslavia, Hungary, Poland) (Georgescu-Roegen, 1997, p. 29).

As to what caused the low cereal yields in Romania during the inter-war period, many explanations have been proposed by economic historians. Adverse weather conditions affected certain harvests; however, it is difficult to assert that these events were more prevalent or severe compared to other historical periods or neighboring nations, nor do they account for the decline in multi-year averages. The fragmentation of landholdings, exacerbated by the agrarian reforms of 1917-1921 and a growing rural population, was a more significant factor. This led to a reduction in large landholdings and a substantial increase in the number and proportion of small peasant holdings. Statistical data clearly demonstrate this significant fragmentation of land ownership (Şandru, 1975, pp. 238-360). Debates on the impact of agrarian reform on agricultural productivity remain contentious, shaped by the ideological biases of various authors and the ambiguity of scientific findings regarding the comparative performance of different types of agricultural holdings. Despite these disputes, it is indisputable that small-scale agricultural holdings were insufficient for cereal production, which remained the primary component of agricultural output in Romania during the interwar period. One contributing factor to the

underperformance of Romanian agriculture at that time was the low agro-technical standard, particularly the insufficient adoption of innovations from the second agricultural revolution of the modern era. As a result, despite efforts by certain county agricultural chambers, supported by direct initiatives from the Ministry of Agriculture and Domains starting in 1929 to promote fertilizer use, Romania ranked last in Europe in fertilizer application per hectare by the end of the interwar period (Axenciuc, 1992-2000, pp. 99-101; Lampe & Jackson, 1982, pp. 445-446).

Despite significant advances in the technical equipment of peasant families during the interwar period, the degree of agricultural motorization remained considerably lower than in other European nations. By the end of the interwar period, Romania had 2,436 hectares of agricultural land per tractor, compared to an average of 598 hectares per tractor across 16 European countries (Axenciuc, 1992-2000, p. 361; Dobre, 1997, p. 183). In addition to inadequate technical equipment, interwar Romanian agriculture was further hindered by substandard agro-technical practices among many peasants, particularly in areas such as crop rotation, seed selection, and proper harvest storage. Other aspects of agricultural output similarly saw no notable growth during this period. The other components of agricultural output also showed little significant development during the interwar period.

While the cultivation of food and industrial crops expanded more rapidly than that of cereals, their share remained subordinate compared to cereals. Livestock production was relatively more important; however, it exhibited even less dynamism than grain production overall. This stagnation was due to the reduction in animal populations during the war and their limited recovery in the two decades following. V. Madgearu identified several key factors contributing to the decline in livestock populations, including the reduction of grassland areas, insufficient expansion of land dedicated to feed crops, and a decrease in crop yields per hectare. These factors limited the potential for improving yields per animal, making the production of meat, milk, hides, skins, wool, eggs, and other products more dependent on fluctuations in livestock populations rather than on the marginal increase in average output per animal (Madgearu, 1995, pp. 49-53). The decline in domestic animal populations also reduced the availability of natural fertilizers, further negatively impacting agricultural production dynamics. The agricultural sector of the “Kingdom of Romania” was consequently limited in its potential for expansion. While solutions existed, they required a significant reorganization of agricultural production, diversification of crop cultivation, and improvement in livestock farming, alongside the adoption of advanced practices and technologies that had proven successful in other regions. In this context, Romania's achievements in the 1930s were notably

limited (Şandru, 1973, pp. 83-84). The subpar growth in agricultural production, measured in physical terms, represents only a fraction of the challenges faced by Romanian agriculture during the interwar period. An additional factor was the adverse global agricultural conditions that prevailed for much of this time (Madgearu, 1995, p. 65). V. Axenciuc asserts that Romanian agriculture during the interwar period not only suffered from its underdevelopment and exploitation by other domestic sectors but was also impacted by harmful external economic factors, particularly the global agrarian crisis of 1928-1936. This crisis worsened the existing deficiencies in Romanian agriculture and had severe consequences for the country's social fabric (Axenciuc, 1997, p. 244).

I. Svernilsson argues that, in the context of global developments, the recession in European agriculture reflects declining productivity and competitiveness compared to non-European exporters. By the mid-1920s, the continuous expansion of production outside Europe, combined with the recovery of agricultural output in many European countries and a decline in cereal consumption in developed nations, led to a reversal in price trends during 1925-1926 (Svernilsson 1954, p. 84). This, in turn, contributed to the gradual onset of a severe agricultural recession, particularly impacting the cereal trade. V. Bozga notes that, despite a decline from its peak in 1925, wheat prices across various markets remained relatively profitable in 1926 and 1927. However, a significant decline began in 1928, reaching unprecedented lows between 1932 and 1934, followed by a partial recovery until 1937, after which prices dropped again in 1938 and 1939. The fall in agricultural prices prompted many governments in importing nations to protect their domestic producers, either by increasing customs protection or implementing non-tariff measures, such as setting ratios between imported and domestic wheat for milling processors, regulating import-export conditions, establishing import quotas and licenses, and varying levels of direct state intervention to manage markets. Consequently, developed nations were able to maintain their agricultural production even during the most challenging periods of the recession, with the negative effects primarily impacting exporters, especially those unable to diversify into sectors less affected by the economic downturn than cereals. Despite a modest recovery in cereal prices between 1935 and 1937, the global agricultural market became significantly more fragmented and subject to greater state regulation and control than it had been before the First World War or during the 1920s (Bozga, 1975, pp. 38-42).

Despite having more than twice the territory and population of the “Old Kingdom”, “Greater Romania” exported significantly lower quantities of grain than in the pre-World War I years, with 1931 being the only year when exports exceeded

the 1910-1914 average. In the first decade of the interwar period, export volumes were largely dependent on production fluctuations, such as the drop in exports during 1919-1920 and the poor harvest of 1924 affecting 1925 exports. In contrast, the influence of demand fluctuations, as reflected in international market prices, was virtually nonexistent. This situation continued throughout the most severe phase of the agricultural depression, and it was not until 1933 that export volumes began to align with global market conditions. However, after 1931-1932, the importance of prices diminished as many Western European nations introduced non-tariff barriers to cereal imports. Romania either refrained from exporting or exported only modest amounts when global prices were high, while significantly increasing exports when prices were low. Romanian grain exports during the interwar period followed an even more detrimental pattern than in the 19th century. From an economic standpoint, it can be argued that Romanian cereal exports during this time were primarily driven by fluctuations in supply (output) rather than demand (global price levels), which is characteristic of economic underdevelopment. In addition to these objective challenges, political factors likely contributed to the delay and limitation of recovery efforts (Axenciuc, 1992-2000, pp. 373-374; Murgescu, 2010, pp. 234-235; Svennilsson, 1954, p. 243). The issue of inadequate and burdensome credit for agricultural producers was frequently emphasized by both interwar observers and later historians. The scarcity of financing undoubtedly hindered efforts toward agricultural modernization. D. Şandru, after thoroughly examining this issue, asserts unequivocally: “The inadequate financial resources available to agri-food sector producers are accurately reflected in the outcomes and development of this sector of the national economy” (Şandru, 1985, p. 169). While this observation is valid, it is important to emphasize that the financial resources needed for agricultural development could not come solely from credit. Access to credit was also dependent on the income levels of peasants, which, in turn, were influenced by the prices at which they could sell their products.

Despite frequent calls in interwar Romania for the intensification and diversification of agriculture, agricultural restructuring did not gain significant traction in public discourse. Instead, concerns about the deteriorating balance of payments took priority, as they posed a serious risk to financial stability, obstructed the repayment of foreign debts, and threatened the continued functioning of the state. In this context, political efforts focused on increasing the physical volume of conventional exports, regardless of cost, to generate the revenue needed to repay state debt and cover essential imports. N. Georgescu-Roegen praised “the Romanian economy's efforts during the crisis, striving to maintain the gold parity of its

currency and meet its financial obligations abroad”. He concluded that “the Romanian economy's battle against the 1929 crisis was ultimately successful through exports, albeit with considerable losses” (Georgescu-Roegen in Gusti, 1943, pp. 438-476, 489). M. Constantinescu explained the rationale for continuing to export cereals despite low prices, arguing that, otherwise, “our agri-food sector producers would have faced a difficult situation, our economy would have been deprived of a vital source of exchange value, and at times, even internal public order and national tranquility could have been at risk” (Constantinescu, 1943, p. 43). This final point highlights the social implications of agricultural exports and the reality that most peasants, driven by necessity, lacked the financial resources to invest in agricultural restructuring. Therefore, had such a strategy been pursued, significant state intervention would have been required to establish processing capacity and guide agri-food sector producers in adjusting crop ratios. Such an intervention would have required a considerable improvement in the state's administrative capacity and the allocation of substantial financial resources.

While it is true that the Romanian state lacked sufficient financial resources, this should not be overstated, as the state still allocated considerable funds for export premiums, and agricultural debt conversion, and allowed a reduction in tax revenue from agri-food sector producers. The issue was thus more rooted in economic ideology and administrative competence than in financial resources. In both cases, Romania faced the consequences of insufficient prior accumulation, particularly its inability to capitalize on the more favorable international prices of the 1920s.

2. Methodology

The juxtaposition of Romania's NW indicator against analogous metrics from other nations elucidates both the quantitative and qualitative dimensions of the accumulation and valorization processes pertaining to the country's material and human resources. It also reveals the efficiency of the driving forces behind material civilization and offers insights into the assessment of the development level of the Romanian economy, the economic disparities observed across various periods in relation to more and less advanced countries, and the extent to which historical developmental delays have been addressed. The comparative analysis may elucidate, contingent upon the availability of requisite information, the variances in the dynamics of national wealth within the examined timeframe, the quantitative disparities, the structural distinctions, and the hierarchical differences as measured against the scale of European values (Axenciuc, 2000, p. 286).

The statistical data regarding the NW indicator across various nations is only partly comparable, given that the methodologies employed for calculation differ among authors. For instance, W. Woytinsky's assessments of the national wealth of various nations during the same timeframe reveal discrepancies that are generally deemed acceptable for drawing parallel and pertinent conclusions. In his extensive seven-volume series on global statistics, "Die Welt in Zahlen", a significant portion of the inaugural volume "Die Erde" is dedicated to exploring the National Wealth of diverse countries across the globe. They remain an important repository of knowledge for those who seek to explore this topic further (Woytinsky, 1925, pp. 1-137). The likelihood of compatibility increases significantly, within the widely recognized parameters, when a scholar employs a consistent methodology to assess the NW indicator across multiple nations, as demonstrated by the works of Mulhall, Stamp, and others (Axenciuc, 2000, p. 285; Mulhall, 1909, pp. 1-544; Stamp, 1919, pp. 156-181). While the divergence from reality may fluctuate in either direction, the resultant ranking coefficients, variations in size, and historical distances typically maintain consistency, thereby facilitating analysis and the establishment of quantitative value indicators. Typically, many authors, to circumvent overestimations, have opted for reduced values and have generally excluded from their assessments the complete national wealth of certain items due to the challenges associated with quantification. Consequently, the total accumulation of wealth is frequently undervalued for the group of nations adhering to the same evaluative framework. However, what influences comparability to a greater extent is the varying degrees of asset inclusion in the assessment of national wealth. Generally, throughout the extensive periods of development and enhancement of diverse economic methodologies, the range of inclusion continues to encompass the familiar elements, albeit to differing extents.

During the transition from the 19th to the 20th century, the predominant elements of NW, as assessed by various scholars, were primarily tangible goods or assets. This included land, encompassing both arable and perennial soils, agricultural labor, livestock, and, in totality and the valuation of agricultural households. Additional elements encompassed structures and residences, durable goods for consumers, infrastructure, industrial and commercial investments, holdings of precious metals, among other assets. In certain instances, the authors incorporated financial stocks, securities, and banknotes, occasionally neglecting the potential for double-counting. Certain studies also assess the worth of valuable geological and mineral resources found within the soil and subsoil, whether they are currently exploitable or present at that time, albeit with an approximate and somewhat limited

scope. In examining the evolution of research methodology concerning national wealth, it is evident that post-war economics has significantly advanced in delineating precise categories and organizing concepts. This progress stands in stark contrast to the initial treatment of national wealth as an economic domain, which remained largely superficial until the conclusion of the fourth decade of the 20th century (Axenciuc, 2000, p. 310; Mulhall, 1909, pp. 1-544; Stamp, 1919, pp. 156-181).

The investigation into NI, which experienced a resurgence following the fifth decade, aimed to enhance and categorize the concept along with its calculation methodologies, was situated within the framework of the national accounts approach as a representation of flows. These studies have revived the examination of national wealth, reinterpreting it as a concept and endowing it with new roles within the framework of national accounts. Consequently, the terms stock, asset, and national capital have gained significance beyond their historical, traditional, and inadequately defined contexts. It is important to recognize that the evolution of the concept in this way has also led to essential definitions and delimitations for the functioning of the aggregated indicators, although this paper does not aim at an exhaustive methodological study. Consequently, NW is conceptualized as a repository of goods, characterized by its magnitude and extent, and is situated within the framework of documenting the dynamics and composition of national values, as articulated in the equation of stocks and flows (Axenciuc, 2000, p. 288).

In the inter-war period, the development of national wealth in Romania and other nations occurred against a backdrop of economic, national, and international dynamics that were fundamentally distinct from those preceding the war. During the fourth decade, there were notable alterations in the sources and methodologies employed to acquire information regarding national wealth, particularly in light of data scarcity. However, the fundamental aspect lies in the level of quality of the data. They appeared significantly later, during the seventh and nineteenth decades of the twentieth century, as a consequence of the refinement of methodologies within the comprehensive framework of national accounts (Axenciuc, 2000, pp. 288-289).

3. Results and Discussion

Any assessment of Romania's national wealth during the inter-war decades, as evidenced by the reference sources, has to be conducted in two distinct periods: 1920-1922 and 1938-1939. In the light of this framework, it is imperative to gather comparative data from other nations. During the years 1920 to 1922, the centralized data study conducted by “Dresdner Bank” offers significant quantitative insights. The years immediately following the war, from 1920 to 1922, are profoundly marked

by the devastation wrought by the global conflict. The nations engaged in hostilities emerged from the conflict with substantial detriment to their economic capabilities and a reduction in national wealth, whereas those not directly participating in the war witnessed a notable enhancement in material production and the accumulation of goods, propelled by the demands and supplies directed towards the belligerent countries. Conversely, the triumphant belligerent states noted considerable credits in their financial accounts through reparations received from the vanquished states, which subsequently transformed into significant debtors to the victorious states for a period. Consequently, the national wealth of various states around the globe experienced remarkable transformations within a mere span of 4-5 years. While certain disparities expanded and others diminished, the overarching pattern indicated a decline in the economic capacity of the warring nations, contrasted by a rise in the prosperity of the non-belligerent countries (Axenciuc, 2000, pp. 298, 301, 305, 307, 308; Dresdner Bank, 1930, pp. 1-176).

It is generally accepted that the world war resulted in the obliteration of a significant portion of previously amassed wealth, alongside a considerable decline in the current NI indicator of many of the nations involved in the conflict. W. Woytinsky notes that prior to the war, the total wealth of the world was approximately 1,000 billion US dollars. The war incurred direct expenses totaling 260 billion dollars, alongside indirect losses of 90 billion dollars, culminating in an overall expenditure of 350 billion dollars. The same source illustrates the variation in the magnitude of wealth among the major powers, measured in billions of dollars (Axenciuc, 2000, p. 306). During the First World War, the main combatants suffered immense losses, amounting to millions of lives and material assets valued at approximately 125 billion dollars. In contrast, two nations experiencing significant growth, the USA and Japan, accrued a remarkable 85 billion dollars. The direct losses incurred by Romania reached 31 billion gold lei, equivalent to nearly 6 billion dollars. This significant figure had profound implications for the nation's wealth, resulting in a per capita decline of almost one-quarter during the years 1920-1922 compared to the period of 1912-1914 (Axenciuc, 2000, p. 306; Woytinsky, 1925, p. 197).

Nonetheless, Romania's standing regarding NW and NI per capita, in comparison to other nations, especially within Europe, seems to be distinctly established. Consequently, it can be observed that: (1) The national wealth of post-war Romania nearly doubled due to the economic contributions from the historical provinces that became part of the Romanian State in 1918; however, the per capita level of this indicator diminished, mirroring trends in other nations, primarily due to the devastation and lack of accumulation during the war; (2) This led to Romania's

decline within the European hierarchy in aggregate terms when compared to the years 1912-1914; (3) As a result, the disparity with both developed European and extra-European nations widened. Unfortunately, the absence of comprehensive data regarding the structure of national wealth in the countries examined precludes any quantitative comparative analysis.

The subsequent phase of the assessment of Romania's national wealth encompasses the years 1938-1939, marking the conclusion of the interwar period. The national wealth of all countries on the eve of the Second World War was a culmination of the diverse economic processes that characterized that particular historical period. Alongside the typical trajectory of development, there were notable economic crises and periods of stagnation in growth, fluctuations in currency values, significant shifts in international capital movements, substantial reductions in prices, stringent protectionist measures in both industrial and agricultural sectors, and pronounced price surges for agricultural and industrial commodities in the global market, among other factors. Consequently, certain nations experienced greater losses while others faced lesser declines. Some countries diminished their national wealth, whereas others augmented their reserves and benefits, thereby enhancing their overall prosperity. The victors were the advanced, industrialized nations, whereas the defeated were the agrarian countries characterized by underperforming economies. Disregarding the broader macroeconomic and global economic shifts, one can arrive at a general conclusion - with certain exceptions, the inter-war period witnessed an unprecedentedly sluggish rate of growth and accumulation in material production, especially in the industrial sector, while national wealth expanded at a notably reduced pace. Consequently, the available data regarding the national wealth of different countries for the years 1938-1939 is lacking, which restricts the ability to compare Romania's metrics with those of other nations more than in earlier assessments conducted in Romania (Axenciuc, 2000, p. 210).

The inter-war period is marked by significant and tumultuous fluctuations in material production, distinguishing it from earlier historical epochs in the context of economic growth and accumulation. In a manner reminiscent of earlier periods, the techno-economic dynamics within the advanced nations leading the charge of progress have served as pivotal influences on global economic patterns, particularly regarding the trajectories of less developed economies. Sectoral estimates predominantly emphasize the wealth of the State, articulated through distinct modalities of activity and organization. A first inventory can be traced to 1929, from which it follows that, in accordance with the stipulations of the Public Accounts Act,

the assets of the State ought to have undergone annual inventory or the balance of the current year should have been incorporated into the inventory of the preceding year. Nonetheless, this procedure was not adhered to. In 1938, the Ministry of State Property Inventory was established, subsequently evolving into the Undersecretariat of the Ministry of Finance, tasked with conducting this operation on an annual basis. The culmination of these endeavors was the cataloging of the State's assets in 1939, succeeded by those for the fiscal years 1940-1941, 1941-1942, and 1942-1943. The documents and statistical information pertaining to the previously mentioned records were preserved in the archives of the Ministry of Finance, which was under the purview of the Undersecretariat of Inventory, and partially in the National Archives of Romania, specifically within the archives of the Presidency of the Council of Ministers (Axenciuc, 2000, p. 213; Turdeanu, 1947, p. X).

The pertinent data originate from the comprehensive inventory of the State, finalized on 31 March 1940, by the Directorate of Inventory of Public Property under the Undersecretariat of State for Romanianizing, Colonization, and Inventory, with L. Turdeanu serving as the director of the Inventory of Public Property. The General State Inventory's data primarily pertains to the assessments of State property conducted in 1938 and 1939, with the centralization and calculation processes executed in 1939 and the early part of 1940. The estimates pertain to the years 1938-1939, which represent the focal period of the study. It should be noted that the figures pertaining solely to tangible assets have been derived from the State's inventory, excluding any cash balances. In accordance with established methodology, it is acknowledged that debts and credits among various institutions are regarded as being internally reconciled. Consequently, only those external claims and liabilities that have had a substantial impact on the magnitude of NW have been considered (Axenciuc, 2000, p. 213).

Further partial assessments pertained to the agricultural sector, leading the Ministry of Agriculture and Domains to evaluate, for the years 1927, 1935, and 1936, the worth of land, both living and non-living agricultural inventories, as well as rural structures, encompassing the majority of the nation's agricultural resources. The N. W. during the years 1938-1939 reveals an implicit valuation of material goods, which can be discerned through the prices and currency of that period. This necessitates a transformation for compatibility into pre-war gold lei, utilizing the general coefficient of wholesale prices. This procedure is acknowledged due to the inherent challenges in directly estimating prices in pre-war gold lei, which becomes flawed, if not unfeasible. The two decades from 1919 to 1938 were characterized by significant price volatility, inflation, and economic turmoil, leading to a severance of the direct

and equivalent relationship between paper lei and gold lei. This occurred amidst shifts in price structures, particularly concerning the pricing of various groups of goods, including those related to import and export (Axenciuc, 2000, p. 218).

During the ten years leading up to 1938-1939, two notable trends in land prices became apparent. The initial factor, a contraction, arises from the agrarian crisis, notably exacerbated by the significant indebtedness of small peasant holdings to financial institutions and moneylenders throughout the initial post-war decade, particularly following the agrarian reform of 1921, which influenced land valuations. A survey conducted by the Ministry of Justice in 1932 revealed that 64% of peasant households/small-scale agricultural holdings possessing land of up to 10 hectares were burdened by a staggering total debt of 37.4 billion lei, averaging over 15 thousand lei per debtor. In certain areas, the debt has escalated to as much as 50-60% of the value of the land. In this context, the value of land decreased at a rate surpassing that of the overall price index, a situation further intensified by the significant reduction in the purchasing power of the peasantry, as agricultural commodities experienced a decline of 35 to 60% from their 1928 prices during the period from 1929 to 1934. The second trend in the evolution of land prices was characterized by a swift yet partial recovery, driven by the flourishing phase of the economy, the increase in agricultural product prices, and notably, the alleviation of the peasantry's debt burden due to the conversion of 1934. The rural debt was diminished to half its original size, with the residual amount distributed over a period of 17 years at an interest rate of 3%. During the initial years, specifically from 1935 to 1938, the substantial recorded debt imposed on the peasantry required them to pay less than 3% annually, a policy that significantly alleviated the financial burdens faced by rural households in an unprecedented manner (Axenciuc, 2000, p. 215; Georgescu-Roegen in Gusti, 1943, pp. 967-978).

Consequently, while certain household categories could benefit from their financial surplus for land acquisitions, the impetus to divest land to other groups decreased. Consequently, the demand for land experienced a resurgence, while the supply seemed constrained, leading to a more rapid increase in land prices compared to agricultural product prices. The researchers who assessed the NW indicator for the years 1938-1940 employed both primary sources and secondary calculations. The research presented in the *Enciclopedia României* (Encyclopedia of Romania) established the valuation of land through two distinct methodologies: (a) utilizing the average taxable income from 1930, capitalized at a rate of 5%; (b) drawing from N. Cornățeanu's analysis, which considered the average price of arable land during the economic downturn of 1932-1933, initially set at 11,600 lei per hectare, subsequently

adjusted upward by 10%, culminating in a valuation of 12,800 lei per hectare. The valuation of pastures and meadows was similarly conducted, with an estimated worth of 8,000 lei per hectare. In the year 1930, vineyards were appraised at a valuation of 30,000 lei per hectare, while orchards were assessed at 20,000 lei per hectare, based on the capitalization of income method. Furthermore, the Romanian Institute of Agronomic Research (ICAR) provided approximate average general estimates for various categories of land in 1939: 14,000 lei per hectare for arable land, 10,000 lei per hectare for pasture and meadow, 50,000 lei per hectare for grafted vineyards, 25,000 lei per hectare for ungrafted producing vines, and 38,000 lei per hectare for orchards and trees (Axenciuc, 2000, p. 216).

In his analysis, L. Turdeanu employed the land valuation from 1940, referencing the 1935 price as documented in a Ministry of Agriculture publication. This assessment revealed notable discrepancies when compared to the figures presented in the Encyclopedia of Romania and the ICAR. Specifically, the rounded values indicated were: 10,000 lei per hectare for cultivated land, 8,000 lei per hectare for pastures and meadows, 40,000 lei per hectare for vineyards, and 20,000 lei per hectare for orchards. Some researchers suggest that both N. Georgescu-Roegen and L. Turdeanu employed a more straightforward calculation method, which may have led to an underestimation of land prices and, by extension, their value. The discrepancies in unit prices, particularly those derived from the economic crisis years or the 4-5 years preceding 1939, introduce a notable degree of relativity to the estimates provided (Axenciuc, 2000, p. 216; Turdeanu, 1947, p. 15). The survey conducted by H. Lupan, which stands as the sole study grounded in direct information and scientific calculations, reveals that in 1929, the average valuation of one hectare of arable land in the country was 20,240 lei. In contrast, one hectare of meadow was valued at 23,938 lei, pasture at 9,708 lei, vines at 55,984 lei, and fruit trees at 38,198 lei (Lupan, 1934, pp. 18, 20, 22-26). Notably, the authors did not assign value to this data. The rationale behind the solutions proposed for calculating land value by the aforementioned authors lacks persuasiveness, especially regarding the aspect of capitalizing taxable income. This approach possesses several fundamental limitations, imparting to it a sense of relativity. To begin with, the tax legislation stipulates that most of the peasantry/small-scale agricultural holders, possessing a taxable income below 2,000 lei, were entitled to a 25% reduction in land tax. A notable deficiency was the exclusion of extensive territories owned by the State, legal entities, and the Royal House of Romania, which were neither subjected to taxation nor incorporated into the income statistics. The taxable income was therefore significantly undervalued (Axenciuc, 2000, p. 216; Moldovan, 1983, p. 18).

Generally, specialized authors advise, to the extent that sources allow it, against employing this method due to its relative and situational nature, as well as the tax data on taxable income, which all experts regard as lacking in comprehensiveness and significantly underestimated, by as much as 40-50% of the actual situation. A study conducted in 1983 holds particular significance in this context. To achieve values that more accurately reflect the reality of agricultural incomes, R. Moldovan undertook a readjustment of the data derived from the nominal agricultural tax, which had been significantly underestimated according to official statistics. The author adjusted the agricultural income series for the years 1924-1938 as follows: for the years 1924-1929, the figures were increased by 100%; for 1930, by 80%; for 1931-1934, by 70%; for the period 1935/36-1936/37, by 60%; and for 1937/38-1938/39, by 50%. Consequently, the author, an expert in the discipline, posited that from 1924 to 1938, the tax data pertaining to agricultural income reflected merely 50-60% of the actual figures, and that for accurate application, these figures needed to be augmented by 100% to 50%. Given the ambiguous and overly vague data regarding land prices, one can only reach conclusions that align with the findings of the aforementioned studies, which are fundamentally significantly undervalued (Axenciuc, 2000, pp. 216-217; Moldovan, 1983, p. 18).

Examining the specialized literature to acquire direct information with enhanced certainty regarding land value reveals that the homage work from the Ministry of Agriculture, published in celebration of the tenth anniversary of King Carol II's reign, titled "Agricultural Achievements 1930-1940", provides a significant evaluation of arable land value. The specialized directorate of the Ministry assessed their value in 1938 to be 286 billion lei. One can ascertain the origin of the data by conducting a thorough examination of the documents archived within the Agricultural Economics Directorate of the Ministry, found in the repositories of the present-day National Archives of Romania. The archival material delineates computations regarding the area and valuation of land, categorized by land types, price per hectare, and overall value across the 12 agro-geographical regions of the nation. The comprehensive data originate from the aggregation of county-level information, thereby substantiating the assertion that a more thorough examination of the national land fund's value was conducted for 1938, akin to the analysis performed in 1929 by H. Lupan (Axenciuc, 2000, p. 217; Lupan, 1934, pp. 18, 20, 22-26). In the interwar period, despite a significant drop in land prices during the agrarian crisis, they rebounded, reaching pre-crisis levels for some categories but remaining below this level for others. While land prices for the majority of arable and pastureland, which made up nearly 60% of the total, were expected to be similar,

grape prices in 1938 were 58% lower than those utilized in 1920-1922. One reason for this is that in the interwar years, ungrafted producing vines, which were far less expensive, expanded and grew to account for roughly half of the vineyard area. The average pricing per country, in various categories, according to the utilization of agricultural lands, can be computed using statistical data. In 1938, however, the sources offer us with two sets of statistics on agricultural land. The first was compiled from 1919 to 1938 by the Ministry of Agriculture and Domains, while the second was compiled in 1937 and 1938 by the State Statistical Institute, which was tasked with compiling agricultural statistics for the country during these years (Axenciuc, 2000, p. 218).

Many authors suggest that the data pertaining to the various categories of land within the “Kingdom of Romania”, as gathered by the Institute of Statistics, accurately reflects reality. This is due to the annual gathering process, which employed specific forms at commune level, subsequently county level and ultimately countrywide level. The Ministry of Agriculture and Domains typically employed a range of methodologies to gather different indicators of agricultural statistics. This included, for instance, calculating the difference between the area of the current year and that of the previous year, to which this difference was subsequently added. Additionally, statistical surveys were conducted periodically for orchards, vineyards, pastures, and meadows. Consequently, the figures for these categories of land remained consistent over several years, as evidenced by the Ministry's statistics (Axenciuc, 2000, p. 219).

The growth and development of the Romanian economy was shaped by the country's circumstances following 1938, influenced by external factors, the enhancement of economic capacity stemming from national integration, substantial financial responsibilities imposed upon the nation, the devastation wrought by war, the cyclical fluctuations of the global economy, the economic downturn of 1929-1933, the erratic trends in prices and currencies on the international stage, and the military endeavors of the major European powers. Consequently, global economic dynamics overlapped with the trajectory of Romania's social production, interrupting the development and accumulation of the NW. Numerous scholars assert that the trajectory of the Romanian economy during the inter-war period, devoid of external influences, would have exhibited a pattern of steady growth. This growth, while more gradual in the agricultural domain - encumbered by the inherent challenges faced by the prevalent small agricultural holdings - would have been more robust across non-agricultural sectors. These sectors were invigorated by the widespread adoption of

capitalist economic mechanisms, which directly contributed to enhanced accumulations, particularly in capital stocks (Axenciuc, 2000, p. 210).

NW functions as a sophisticated and comprehensive macroeconomic indicator, capable of articulating and evaluating the economic and social well-being of a nation. Alongside other indicators such as GDP or NI, it can elucidate the possibilities and pathways for progress and efficiency within the community under consideration. The inter-war period experienced a notable increase in scholarly inquiry into the subject, primarily due to the assessments offered by G. D. Creangă, I. N. Angelescu, I. Adămoiu, and V. Madgearu. Subsequently, the contributions of N. Georgescu-Roegen and L. Turdeanu provided substantial clarifications and enhancements in this field, enriching the understanding of national wealth and Romania's economic dynamics within the complex context of the interwar and postwar periods. The recent thorough endeavors have been undertaken with a sense of heightened urgency, and their results offer an elevated degree of confidence (Axenciuc, 2000, p. 10).

Between the conclusion of the fourth decade and the events of December 1989, there was a span of nearly fifty years, during which, upon reflection, no thorough examination of the NW was made available. Nevertheless, in addition to the works that have explicitly tackled the subject of NW, numerous statistical and economic analyses have assessed specific components of the national economic heritage, including land, livestock, tools, agricultural machinery, and industrial capital. While not every study has explicitly tackled the notion of NW, certain referenced authors, acknowledged for their contributions to the economic and historical analysis of Romania, have deeply enhanced our comprehension of the dynamics within the Romanian economy and the elements that make up NW. Among them, Gh. Zane, C. Kirițescu, C. Murgescu, and L. C. Georgescu are particularly noteworthy for their comprehensive analysis of the nation's economic evolution, with a specific focus on the determinants of economic development and the processes underlying the accumulation of NW (Axenciuc, 2000, p. 10).

Victor Axenciuc is renowned for his significant contributions to the understanding of NW and the economic evolution of Romania. Among his most significant contributions is the work titled *The National Wealth of Romania: Comparative Historical Research (1860–1939)*, a landmark study examining the framework and development of Romania's national wealth throughout its modernization phase; “Gross Domestic Product – National Income of Romania 1862–2010. Secular statistical series and methodological foundations” serves as a significant reference in the exploration of Romania's economic history, offering an

in-depth examination of the country's GDP evolution from the mid-19th century through the post-communist era. Additionally, “Economic History of Romania, Volumes I, II and III” presents a comprehensive analysis of Romania's economic development, investigating various facets such as agriculture, industry, trade, and public finance. These works are esteemed for their analytical precision and significant contributions to the discipline of economic historiography, offering a robust foundation for comprehending the development of the Romanian economy during modern and contemporary periods.

An evaluation of Romania's long-term NW calls for a thorough examination and thoughtful critique of prior assessments. This requires a thorough examination for each era and for every component of the NW, as articulated by various scholars. Moreover, it calls for an in-depth exploration of international comparisons, which are crucial due to the assessments made by foreign researchers that offer a more expansive context for interpretation and analysis. The objective of this study is to explore the key quantifiable aspects of the nation's material wealth, to illuminate the national potential amidst the modernization of Romanian society, which is a result of the evolution of productive forces and the accumulation of material resources. It aims to uncover the composition of wealth and the transformations that have taken place, as well as to evaluate the country's level of prosperity in comparison to other European nations. Conversely, by juxtaposing the NI of various years with the NW, one can discern the potential for valorization of the national economic heritage, and, by extension, the effectiveness of the Romanian economy and the economic strategies employed by governments throughout different historical epochs (Axenciuc, 2000, p. 11).

The prominent American academic W. King, in his examination of the US economy, asserted at the onset of the third decade of the twentieth century: “It is absolutely impossible with existing sources to construct a precise statistical-technical answer to the question of wealth and income”. The voicing of such a concern about the US, a country acknowledged for its extensive and meticulous statistical frameworks, further demonstrates the clear difficulties in assessing comparable metrics for Romania, where there is a significant lack of statistical information. Nonetheless, the undertaking of economic back-calculations in areas involving the reconstruction of historical or missing data conducted by numerous scholars, who have broadened their inquiries into macroeconomic indicators over the span of two to three centuries, indicates that such estimations remain feasible, even in the context of Romania. These estimates may be formulated with a degree of tolerance and relativity, which is permissible given the absence of comprehensive

data. Nonetheless, the thoroughness of the inquiry, and consequently the reliability of the findings, is contingent upon both the adequacy and alignment with historical reality of the body of information, as well as the methodologies employed in assessing and evaluating wealth that have been formulated and utilized (King, 1915, p. X; Axenciuc, 2000, p. 11).

Consequently, as indicated by NW statisticians, regardless of the quality of the information sources and the methodologies employed, the resulting indicator possesses a considerable degree of approximation. The multitude of domains, the richness of information, the diversity and relativity of methodologies employed, along with the varying scope of coverage, indicate that NW cannot be quantified in precise terms. These values are consistently, as one researcher articulated, “indicative magnitudes, which merely reflect the scale of National Wealth” yet they may approximate reality more or less closely. In considering the breadth of NW and its various components, it is essential to recognize that modern research is perpetually broadening its framework by integrating novel elements, which consequently necessitates the development of specific new investigative tools. Initially, the focus was on material goods generated by human endeavor. Subsequently, natural resources were incorporated. The earth, with its soil and subsoil wealth, was then complemented by human contributions, encompassing the repository of production knowledge and the accumulation of scientific understanding. Eventually, this also included essential elements such as water and air, as well as cosmic resources like solar radiation. The primary challenge in evaluating NW resides in the potentialities and methodologies for quantifying these ever-expanding and varied components.

At the present stage of the investigation of the subject, looking back, the scope of estimation of NW is limited to the accumulated material goods produced by human activity and to the natural goods subject to valorization, following, more or less, the scheme that became classic from the 18th century until the middle of the 20th century and practiced by almost all authors until then. This provides two advantages: it is located in fields with quantifiable elements and statistical data that can be used, and the results can, within the limits imposed, be compared with the NW data, in terms of dynamics and structure, of the countries in which the aggregate has been studied and measured. These clarifications are necessary not in order to reduce the intensity of scientific efforts, but because estimation is one of the basic features and qualities of the NW indicator, unlike many other indicators, even macroeconomic and summary indicators, which rely on more precise or even exact statistical comparability. Given the limited availability of statistical information pertinent to the periods in question, it is essential to possess experience in scientific

research, utilize established statistical methods effectively, and demonstrate the initiative to create and implement specific solutions that enhance traditional methods in the face of insufficient documentation. The methodology for formulating solutions can be refined as contemporary periods are examined and the precision of the data is validated. Upon the conclusion of this process, a comprehensive methodological framework may then be established for use. This image will illustrate the integration of conventional techniques alongside the emergence of innovative approaches designed to yield the most precise and pertinent assessments of NW (Axenciuc, 2000, p. 12).

The inter-war period, spanning from 1919 to 1939, requires the identification of both the commencement and conclusion of the NW as essential points for its assessment. Although proficient assessments have been conducted for the years 1938 and 1939, the circumstances are more intricate at the outset of the interval, particularly following the 1918 Unification, which brought together the comprehensive material and spiritual legacy of the Romanian nation. The era is notably marked by a significant deficiency in economic statistical data, pertaining to both the pre-war Romanian state and the provinces that were reunited in 1918. Furthermore, any economic data, articulated in terms of value, is compromised by the rampant inflation prevailing until 1926. An assessment of this heritage, albeit relative, is critically necessary for two primary reasons: to gauge the comprehensive economic legacy of the Romanian nation as a whole and to analyze the expansion of NW during the interwar years, achieved within the context of a unified national state (Axenciuc, 2000, p. 13).

Any examination of the subject should rely on statistical and analytical documentary sources, encompassing both Romanian and international economic information, as well as archival data, with a particular focus on the public economic patrimony. Throughout various epochs, for distinct facets of wealth, the lack of information was frequently addressed through indirect estimation and correlation techniques which, according to certain scholars, have effectively reconstructed the historical reality concerning the magnitude of wealth components. Overall, it can be noted that, based on the assurance of the calculations, the assessment of Romania's NW post-1918 is, within the accepted parameters of understanding, understated relative to the actual value of its constituent elements, with the evaluation consistently striving to prevent any material or value overestimation. The previously mentioned observations necessitate a discourse regarding the imperative for Romanian economic and historical scholarship to ascertain and quantify the NW during the relevant periods. The investigation ought to concentrate on understanding

and quantifying the nation's economic prosperity, its development and expansion concerning both material and human resources, as well as its trajectories and long-term growth patterns. Concurrently, the research ought to focus on quantitatively assessing the capacity and extent of wealth accumulation, alongside the critical factors influencing the effective utilization of available resources. It should also seek to identify sectors that exhibit a multiplicative effect in the accumulation process, as well as those characterized by minimal accumulation (Axenciuc, 2000, p. 13).

Comparisons with other countries require, in addition to other macroeconomic indicators, the NW indicator, which is necessary to measure the material and value potential of the national economy, in order to reveal the dynamics, the pace of accumulation and growth of wealth, to expose its structures and their modification in order to define Romania's position in different periods in the European hierarchy. Thus, however relative this overall indicator may be, due to the many reservations generated by the different estimation methods used and the stock of information available, it can acquire, when obtained by reasoned methods, a particular importance in expressing the country's economic potential and the given stock of wealth. The most general known aggregate indicator of efficiency also shows the overall structural dimensions of the national economic wealth, its productive potential in peacetime and its resilience in times of peace or war. The relationship with macroeconomic indicators of comparable significance and value reveals a series of ratios that facilitate intricate examinations of the evolution, trends, capacities, and future prospects of the national economy. The volume and structure of NW per capita, when juxtaposed with similar metrics from industrially advanced nations, underscores the disparities in potential, accumulation, and the overall quality of Romania's wealth. It reflects the country's underdeveloped condition in the mid-19th century and illustrates the persistence, until the 1940s of a relatively low level and inefficient structure of wealth in Romania compared to that of more economically developed countries (Axenciuc, 2000, p. 316).

Despite the previously noted limited comparability stemming from varying estimation methods, the global indicator across different nations can still effectively quantify and articulate, in a straightforward and succinct manner, the disparity, in comparable value units, between countries or groups of countries. Furthermore, this gap can be conventionally translated into a temporal measure, expressed in years. It can therefore be inferred and recognized that the stage of underdevelopment and the disparity at that time with the level of developed economies hold particular significance for Romania's scientific landscape and its standing. As a result, particularly for nations with historical socio-economic disparities, such as Romania,

the assessment and evaluation of NW in terms of its dynamics and structure over the long term assumes significant national, scientific, and political relevance. This analysis is crucial for understanding the positioning of these countries in comparison to their developed counterparts, as well as for formulating strategies, opportunities, and solutions aimed at fostering economic growth and narrowing economic disparities. The research holds potential value and serves to enhance the demand for economic insights and retrospective evaluations, facilitating a more profound and relevant comprehension of economic history. This understanding aims to refine strategies for the future of the national economic framework and bolster Romania's standing within the global economic hierarchy (Axenciuc, 2000, pp. 14-15).

Upon examining the size ratio of Romania's NW per capita in comparison to other nations within the available data, one can discern a significant relationship between non-reproducible assets, such as land, and reproducible assets. In all advanced European nations, the proportion of land value relative to reproducible assets is notably lower than that observed in Romania, highlighting their superior historical accumulation and the enhanced significance of such assets in developed economies. The reproducible elements articulated through means of production are notably more pronounced, with per capita figures indicating that Switzerland stands at 6.8 times higher, Germany at 6.6 times higher, the USA at 5.3 times higher, the United Kingdom at 3.7 times higher, and Denmark at 3.5 times higher. The ratio of merely 1:2.8 in France is also undervalued, as the data pertains to the year 1929. The ratios ranging from 3.5 to 6.8 times, which are unfavorable to Romania, also illustrate the considerable disparity in our nation's technical and technological resources when juxtaposed with those of developed countries. They also noted the significant duration required to align with these advanced economies. While the proposed efforts to bridge the gap were theoretically plausible, their practical realization was rendered unattainable given the constrained means and resources at Romania's disposal during that period. This highlights the economic and technological limitations of the era, which hindered the ability to modernize swiftly and significantly narrow the divide with advanced economies (Axenciuc, 2000, p. 314).

The conducted comparative analyses reveal that by the conclusion of the fourth decade of the 20th century, Romania remained on the periphery of Europe regarding the size and structure of its NW, which had been developed over eight decades of modernization. This positioning contrasts sharply with nations that boasted a tradition of industrial development spanning two to four centuries, alongside substantial opportunities for both external and internal wealth accumulation. This stood in sharp relief to countries that have enjoyed a heritage of

two to four centuries of industrial progress, replete with considerable prospects for both external and internal wealth generation. This context underscores the economic and structural inequalities that exist between Romania and its Western European counterparts, which boast a well-established industrial framework, and an economy deeply anchored in sustained economic growth (Axenciuc, 2000, p. 315).

NW serves as a singular global metric that encapsulates both the magnitude and the composition of a nation's economic assets in terms of value. The outcome is derived from the accumulation of materials and the extent to which a nation's natural and human resources are utilized. It encapsulates the economic impacts of all contributing factors across various categories that have been amassed over time in tangible assets. The transmission of these assets to successive generations within a community plays a pivotal role in fostering enduring economic development and advancement. Consequently, NW represents not merely the available resources, but also the manner in which they have been harnessed and employed over the course of history (Axenciuc, 2000, pp. 315-316). Many authors regard the NW indicator as a valuable tool for enabling comparisons of value across various nations, as well as tracking the progression of a single nation over time. In particular, for R. Giffen, this indicator serves as a valuable tool for evaluating capital accumulation and analyzing the productive capacity and economic potential of the relevant nation. R. W. Goldsmith underscores the importance of estimating NW, highlighting the necessity of understanding its structure, including the various component elements and their respective shares, as well as the distribution across different sectors and branches of the economy. This enables the calculation of the level and rate of growth of its components, facilitating economic and financial analysis grounded in the tables of the balances of the national economy. According to various authors, an understanding of NW enables the quantification of tax obligations and the evaluation of private wealth's contribution to state revenues, serving as a crucial instrument for the formulation of fiscal and economic policies (Axenciuc, 2000, p. 315).

Upon closer examination over extended periods, the global indicator reveals, from a dynamic and foundational perspective, both the elements conveyed by synthetic indicators of similar or limited value, as well as distinct characteristics inherent to itself that may not be captured by alternative global value representations. Regarding its dynamic, structural, and constitutive dimensions, the NW indicator emerges as the singular metric capable of effectively gauging and articulating, in relation to other nations, the extent of a country's global development, implicitly referencing Romania. It reflects the capacity for material accumulation and, by extension, the cultural advancement and progress within

contemporary civilization, as well as the potential for material production through the global values it encapsulates. The NW, when measured appropriately, can reveal at specific moments or historical junctures not only the progress made in the endeavor to align with advanced industrial nations but also the disparity that continues to exist between Romania and this benchmark category of countries, which alone reflect the extent of material advancement. It is important to observe that NW, in absolute terms, experienced a remarkable increase of 7.7 times between 1912 and 1914, and an astounding 20 times from 1938 to 1939, when compared to the years 1860 to 1864. In contrast, the population saw an increase of twofold and fivefold, while net wealth per inhabitant rose by 3.5 times and 3.8 times, respectively (Axenciuc, 2000, p. 317).

The dynamics of the synthetic indicator can be examined in both broad terms and through the lens of the balance of national accounts, encompassing reproducible and non-reproducible material assets, each serving distinct roles in production and social reproduction. Examining their ratio within the overall indicator, along with the dynamics and proportion between directly productive active wealth and indirectly productive passive wealth, holds significant importance for comprehending the economic framework of a nation. To fully grasp the quantitative evolution of the monitored indicator, it is essential to recognize that, while the currency remains unchanged, the prices employed for the estimates were those prevailing at the time. Their ascent reaches its zenith at the threshold of 1914, subsequently giving way to a decline during the inter-war years, characterized by the economic upheavals of that era (Axenciuc, 2000, p. 317).

Over the course of eight decades marked by social and technical-economic evolution, a notable decline in agriculture's contribution to NW has been observed. This period has witnessed significant capital accumulation in industry, transport, trade, and the construction sector, all of which have undergone modernization and partial mechanization. By 1938, these sectors collectively represented nearly 28% of the total wealth, surpassing the construction and durable goods sector, which accounted for 26%. This data reflects the developmental phase of Romania during this era. The significant dominance of the agricultural and construction sectors in 1938-1939, accounting for 71.2%, can be attributed to the inadequacy and underdevelopment of sectors that, in more advanced industrial nations, are prioritized within the national economy, including industry, trade, and infrastructure (Axenciuc, 2000, pp. 319-320).

4. Conclusion

The expansion of NW throughout the eight decades of Romania's modern history, alongside the assessment of its level, structure, quality, and value in comparison to the wealth of other European nations, serves not merely as a ledger of the material investments made by the Romanian state, but also as a foundation for a novel trajectory of NW that emerged in the latter half of the 20th century. This emerging era presents novel avenues for inquiry into the economic transformations and future prospects of Romania, a topic of significant relevance that remains to be thoroughly explored by scholars at the dawn of the third millennium. The economic transformations and the documented evolution of NW are crucial for analyzing and comprehending Romania's efforts, or lack thereof, to bridge the economic disparities with other industrialized nations. Such an evaluation serves as a valuable resource for formulating future strategies aimed at economic development and modernization (Axenciuc, 2000, p. 325).

Studying the NW from a relatively new methodological perspective has always been crucial for Romania, a nation who was primarily agrarian for centuries and a whose long-term historical goal was to accelerate development, bridge gaps, and make efficient use of accumulated and natural resources. For this purpose, its constituents should be generally classified into two categories: passive wealth, which includes material things that do not directly contribute to social production, and active wealth, which includes material items that participate directly in social production and accumulation. The first group would consist of financial assets from the primary sector, which would include machinery, livestock, and agricultural implements, as well as assets from trade, commerce, transportation, and communications, along with related stocks. The second category is appropriate for construction, land in all its forms, and the remaining branches and sectors (Axenciuc, 2000, p. 322).

The initial and most overarching observation pertains to the passive elements of the economy, which have consistently held a position of dominance, as the largest portion of investments has been directed towards land, construction, and consumer durables. Over time, there has been a gradual decline in their proportion of total assets, decreasing from 73.9% to 65.1%, in favor of the active components. The active components consequently rose from 27.9% to 33.5% during the specified period, yet they continued to occupy a subordinate role, despite their critical contributions to production and accumulation. Moreover, fewer than fifty percent of the capital utilized was allocated to plant and equipment (Axenciuc, 2000, p. 322).

It could be argued that for Romania, the proportion of manual work and manual technology on the one hand and mechanized work and mechanized technology on the other had a significant impact on the country's economic development. According to data from the general census of population and economic activities in 1930, it would appear that the active population working with manual labor represented 88% of the country's total, employed in a variety of sectors including agriculture, construction, handicrafts, local transport and trade. It is notable that only 12% of the active population was engaged in mechanized economic activities specific to large-scale industry, transport and communications, or other services. This distribution suggests that the yields of the 9/10 of the economically active population using manual labor, by branch, may have been 8-15 times lower than in mechanized industry (Axenciuc, 2000, pp. 323-324).

The extent of mechanization within Romania's national economy in 1938 is clearly demonstrated when the allocation of installed motive power across the principal economic sectors is examined. From the total of 5,363 thousand kW, the distribution reveals that industry received a mere 22%, rail transportation accounted for 73.5%, while agriculture was allocated only 4.5%. This distribution highlights a significant imbalance, reflective of an agrarian economy predominantly reliant on manual techniques, which defines the foundational productive sectors of the national economic legacy. The level of labor productivity, inextricably linked with the extent of mechanization, reveals notable disparities between Romania and more industrialized nations. A UN study indicates that in 1938, the annual output per capita in Romania's mechanized and non-mechanized industries was assessed at \$290, while in agriculture, it was merely \$80. In England, the per capita output in industry reached \$910, while in agriculture it was \$560. In contrast, Germany reported figures of \$790 in industry and \$290 in agriculture. The data indicate significant productivity disparities, ranging from 2.5 to 3 times in the industrial sector and 3 to 7 times in agriculture, which are unfavorable for Romania (Axenciuc, 1992, p. 253; Axenciuc, 2000, p. 324).

A significant factor in determining NW was the size and quality of the active population, as well as the qualifications held by this demographic. The 1930 general census revealed that the Romanian population aged 7 and over was distributed according to educational level as follows: 57.3% were book-literate and 42.9% were not. The population with book knowledge was grouped according to the level of schooling completed. 49.2% had completed elementary education, 4.9% had completed secondary education, 1.8% had completed vocational training, and 0.7% had completed university or other higher education programs. It can be inferred that

the majority of the country's population, comprising the illiterate (42.9%) and those with four elementary grades (49.2% out of a total of 92.1%), had low and very low skills, with traditional agricultural and handicraft occupations being the primary source of employment. A significant factor of national wealth is the size and quality of the active population, along with the qualifications possessed by this demographic. The general census of 1930 disclosed the distribution of the Romanian population aged 7 and above in relation to their educational attainment as follows: 57.3% demonstrated proficiency in reading and writing, while 42.9% did not possess such skills. The population possessing literary knowledge was categorized based on the extent of their educational attainment. 49.2% of individuals had attained elementary education, 4.9% had achieved secondary education, 1.8% had undergone vocational training, and 0.7% had completed university or other higher education programs. It is evident that a significant portion of the nation's population, including the illiterate (42.9%) and individuals with only four elementary grades (49.2% of a total of 92.1%), exhibited low to very low skill levels, with traditional agricultural and handicraft occupations serving as the main avenues for employment (Axenciuc, 2000, p. 324; Gusti, 1938, p. XVIII).

The degree of utilization of this demographic potential further complicates the situation, contributing negatively to its overall impact. Specialized studies indicate that merely 51% of the 80% of the nation's workforce engaged in agriculture effectively utilized their working hours, largely owing to the sector's cereal-centric and seasonal characteristics. From the overall labor total, approximated at 1,041 million working days based on male standards, there were 519 million working days lost each year. This loss represented roughly half of the National Income generated in this sector, resulting in a comparable decline in the growth of material wealth accumulation. The issue of agricultural overpopulation presented a significant challenge and an ostensibly intractable dilemma for the Romanian nation during that period (Frunzănescu & Dumitrașcu, 1940, p. 15; Axenciuc, 2000, p. 325). The combined impact of inadequate labor endowment with mechanized techniques and technology, insufficient qualification levels, the underutilization of the working population's time resources, and other deficit factors has resulted in a low NI per capita and a reduced rate of wealth accumulation, particularly when contrasted with developed industrial nations. A compelling comparison can be drawn from the observation that in 1938, Romania's per capita NI was 60% of the corresponding figure in England during the years 1765 to 1785, and 57% of that of France in 1840 (Axenciuc, 2000, p. 325; Axenciuc, 1997, p. 403; Kuznetz, 1971, p. 24).

Between 1920 and 1922, Romania underwent land redistribution as part of the agrarian reform implemented in 1921. In accordance with the agrarian reform laws and various other legislative measures, provisions were established for compensating former proprietors for expropriated land, as well as for paying peasants who acquired land during the ownership transfer process. The expropriated area represented more than half of the nation's arable land; thus, the expropriation price could theoretically serve as a basis for assessing the value of the entire agricultural estate. However, the stipulations in the legislation regarding the evaluation of expropriated land restrict the use of this method. Firstly, due to the fact that prices were set at the local level, with each estate determining its own price based on a range of criteria, including regional and historical provincial factors, there was a significant discrepancy in pricing across the country. It was not possible to identify a single, unified price for land at the national or provincial level. In this regard, the data from the chapter entitled "The Price of Land" in D. Şandru's work, *The Agrarian Reform of 1921 in Romania* (Bucharest, 1975, pp. 213-237), are particularly illuminating, providing numerous examples of significant price differences.

The most recent legal provisions stipulate that the price for expropriated land received by large landowners shall not exceed 40 times the rent per hectare, as determined by the Regional Commissions in 1916 for the period between 1917 and 1922. However, the prices that peasants were required to pay for land were typically calculated in a manner that was advantageous to them, with a maximum of only 20 times the average rent per hectare in the respective locality. Consequently, the aforementioned calculations resulted in a multitude of disparate local land prices. Moreover, the reform and the calculation of land prices were carried out over an extended period, resulting in significant fluctuations due to inflationary pressures. It is also noteworthy that, in addition to the numerous criteria - including average rent, average income, pre-war average land prices, and others - introduced into the calculations, beyond the general criteria stipulated by law, prices were also negotiated and disputed by the two interested parties - on one side, the expropriated landowners, and on the other, the peasants receiving the land. Both parties sought to increase or decrease the land price, resulting in disparate land prices even within the same village. We concur with the general observation of the cited author, namely that "the pricing standards were set in such a way that the price paid by the peasants and even by the state to the landowners was below the current value of the land" (Şandru, 1975, p. 220).

With regard to the agrarian reform of 1921, including the expropriation price and the price paid by small-scale agricultural holders/peasants for land, a

considerable body of literature has been produced, encompassing dozens of works and hundreds of studies. A review of the literature in this field reveals no viable solution for estimating the real price of land on a national scale. Therefore, it is evident that any attempt to calculate the price of the country's agricultural land - and, by extension, its NW (national wealth) - based on the prices set by agrarian reform laws or the rates applied by the land redistribution commissions will not yield accurate results.

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Traditional Architecture, a Triggering Factor for Rural Tourism Development in Romania

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ABSTRACT

Rural tourism has been identified as one of the most attractive types of tourism among Romania's international visitors. Furthermore, the entire context generated by the COVID-19 pandemic has led to the orientation of Romanian tourists towards remote destinations and small lodgings, located especially in rural destinations. Thus, new opportunities have been identified and capitalized upon by entrepreneurs in the hospitality sector. This paper is a research note that aims to highlight the development of a new niche on the Romanian rural tourism market. Namely, employing desk research methods, this paper focuses on identifying the destinations where new lodgings were developed making use of traditional houses, which were moved and rebuilt there. The main research question can be formulated as follows: *Does rural authentic architecture contribute to the development of a qualitative offer of lodging services in rural areas, in line with the expectations of baby boomers and millennials?*

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1. Introduction & Literature Review

According to the most recent strategy (Ministry of Tourism & World Bank, 2018, pp. 20-21) for Romania's tourism development, the country features a large variety of tourist experiences and possesses a high potential to ensure economic growth at local, regional, and national levels via its existing tourism forms (nature and adventure; winter sports and ski; culture and history; health and wellness; sea and sun; city-breaks; MICE; and gastronomy).

The same strategy points towards the fact that, compared to its main competitors relative to the international markets, Romania benefits from comparative advantage and the development potential of modern tourism and visitor experience, derived from four key segments, highly attractive for foreign visitors:

- cultural heritage, cultural and historic tourism, with gastronomic experiences;
- nature and adventure, which include eco-tourism and rural tourism;
- health and wellness, with a focus on Romania's rich thermal and spa resources;
- MICE (meetings, incentives, conferences, and exhibitions).

The remaining three sectors (sea and sun; winter sports and ski; and city breaks) feature high importance for the domestic market.

The specialists indicated that Romania faces two major challenges (Ministry of Tourism & World Bank, 2018, p. 4): tourist spending (both domestic and international) is too low, and, at the same time, Romania attracts an insufficient number of foreign tourists with above-average budgets. Among the most important causes of this reality, specialists have identified the following ones: attractions are insufficiently developed and/or difficult to reach; tourism consumption opportunities are insufficient and hard to find; at destination level, tourist services and experiences lack qualitative competitiveness; and a poor capacity of developing public policies in the field of tourism, translated into an inappropriate market segmentation and a limited international visibility of Romania's tourist attractions and travel experiences (Ministry of Tourism & World Bank, 2018, p. 4).

Several travel trends (Ministry of Tourism & World Bank, 2018, pp. 63-66) have been identified at global level related to baby boomers. Due to their available spare time and their financial resources, baby boomers have become the most important age-based segment while millennials are expected to represent 50% of the travel market by 2025. Solo travelers are an increasing market segment, particularly among women. Furthermore, both solo and group travelers seek learning opportunities and local cultural experiences. Like the previous groups, millennials are eager to explore, interact, and have emotional experiences while using digital technologies, getting informed online, and making bookings and reservations online, using e-mail,

websites, platforms, social media, and co-travel applications. Trends bring up personalized and authentic travel experiences, with travelers relying on technology to plan and book their vacations, while collecting information regarding the reputation of the destination, and also aiming at achieving a good cost/benefits ratio. Technology is essential throughout their trip, as their key preoccupation is to be well-informed but also when shopping for tourism products and services, both before and during their trip. A major global trend is the increase in education levels among tourists, who, consequently, express demand for more education-related tourism activities (e.g., educational trips, photo safaris, trekking and mountaineering activities, the observation of fauna and flora, etc.). Furthermore, they prefer authentic experiences and lodgings and are oriented towards quality suppliers. Short breaks appear as an important trend among tourists and are supported by the increased diversification of destinations. Moreover, tourists seem to have become more focused on social and environmental aspects. These trends match the four major segments of Romanian tourism as described above.

Several papers discussing the importance of baby boomers in the tourism market have been identified. Starting from these, a database containing 25 articles addressing baby boomers and millennials in the context of rural authenticity-related concepts (rural tourism, authentic tourism, traditional design, authentic rural design, or fair design), and also Romania. The bibliometric analysis reveals the following connections between rural tourism (as a core element) and the other concepts: traditional fairs and traditional food, training, traditions, mass communication, rural areas, baby boomers, tourism, and sustainable development. From among Romanian destinations, Banat is a region that appears in some studies (Fig. 1).

Among these, some believe that baby boomers represent a growing market that marketers and travel agencies are increasingly focusing on (Patterson & Pegg, 2009). This trend has been linked to the fact that compared to other generations of older people, baby boomers are generally healthier, financially secure, better educated, and more eager for novelty, escape, and authentic experiences (Patterson & Pan, 2007). Vojvodić (2017) supported this theory by observing that older visitors exhibit a need for escape in addition to a desire for novelty when looking for genuine experiences.

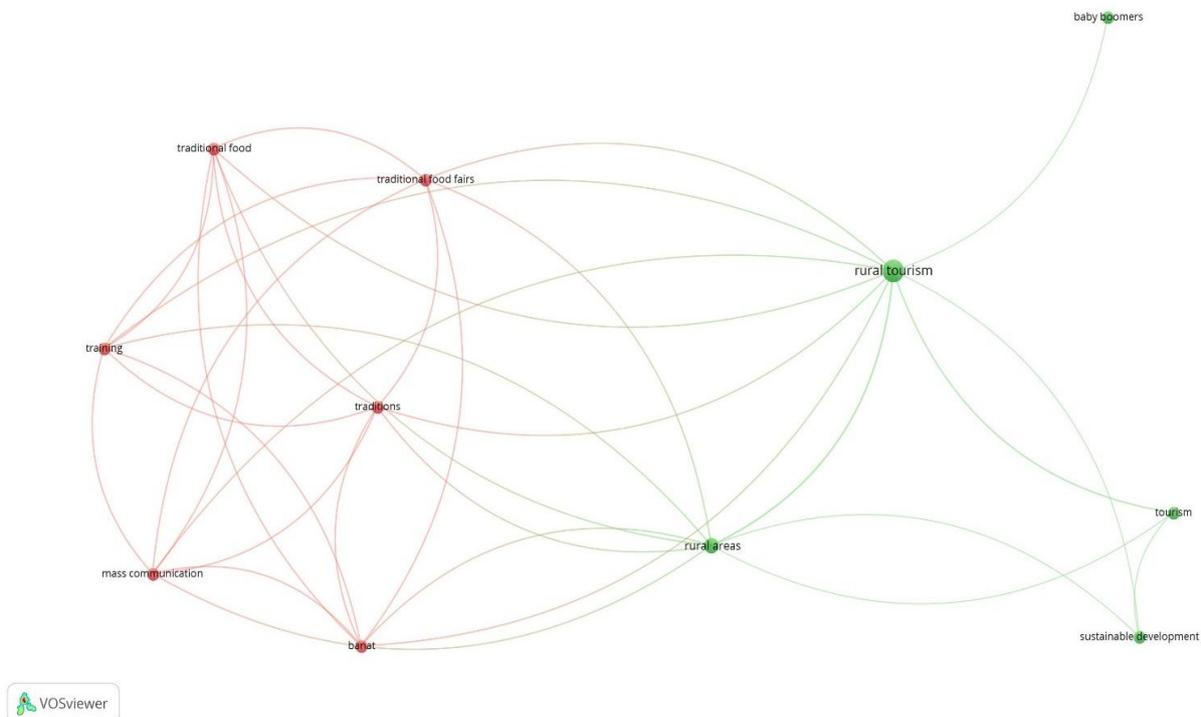


Fig. 1. Bibliometric analysis of 25 WoS publications based on 2-keywords co-occurrence for “baby boomers”, “millennials”, and rural authenticity-related concepts
 Source: Authors' processing using VOSviewer

In the countryside, rural architecture is expressed through vernacular architectural style, with houses and other buildings being developed with local materials, to integrate into the landscape and to respond to the peasants' needs; it is the result of the local builders' skills and crafts, respecting traditions rather than using formally trained architects. Along with the many rural natural, material, and immaterial heritage resources, of which many are included in the UNESCO heritage (Ministry of Tourism & World Bank, 2018, pp. 80-81). Many rural destinations have faced for many years developments that were not in line with the local-specific architecture and the regulations that indicate the use of local materials and architectural plans. However, over the most recent years, many rural destinations have attracted entrepreneurs who have oriented towards the rebuilding and/or refurbishing of old houses in their original places or novel locations, respectively who have opted to build new properties in line with the local architecture and traditions. Such businesses seem to have developed quickly and represent today an important part of the preferred supply in various destinations throughout Romania.

However, the academic literature addressing this particular segment seems to still be scarce and limited. The paper continues with the sections dedicated to methodological aspects, findings and discussions, and concluding remarks.

2. Methodology

The present research consists of a desk research-based case study.

The paper's literature review and context identification have been developed employing VOSviewer-assisted bibliometric analyses conducted on the identified articles in the Web of Science (WoS) database. Because the standard 5-keyword co-occurrences revealed only a few connections among the considered keywords, bibliometric analyses have also been carried out using 2-keyword co-occurrences, which provide a somewhat more detailed image of the literature-related developments. Given the orientation of the authors towards the European market, the WoS database has been refined and papers not addressing the European space have been only briefly discussed or even excluded. Future analyses will be conducted on the Scopus database, as a potential extension in the coming stages.

For this initial stage of the investigation, a research question has been formulated: *Does rural authentic architecture contribute to the development of a qualitative offer of lodging services in rural areas, in line with the expectations of baby boomers and millennials?* To respond to this question, an introductory case study dedicated to Romania's rural tourism authentic facilities has been designed relying on online data collection (using social media platforms, own websites of the lodgings, destination websites, bloggers, vloggers, and other influencers). A database has been created for the old/recognized rural destinations completed with new/emerging/remote destinations, in line with tourists' preferences.

3. Literature-based Brief Findings and Discussion

In the first stage, a total of 96 papers were identified when searching the following combination of keywords: “traditional village”, “rural tourism”, and “architecture” in the WoS database. As Fig. 2 shows, most of the identified articles address tourism in relation to: traditional villages, heritage, areas, rural tourism, and China. Rural tourism presents a very clear interaction with sustainability, heritage, areas, traditional villages, and sustainable development. Unsurprisingly, sustainable development is linked directly to rural tourism, and via traditional villages to tourism in general. Rural tourism is mainly linked to the traditional village(s) and heritage. The keywords that appear most often are tourism (29), traditional village (15) and traditional villages (11), heritage (12), and sustainability (10) together with sustainable development (6).

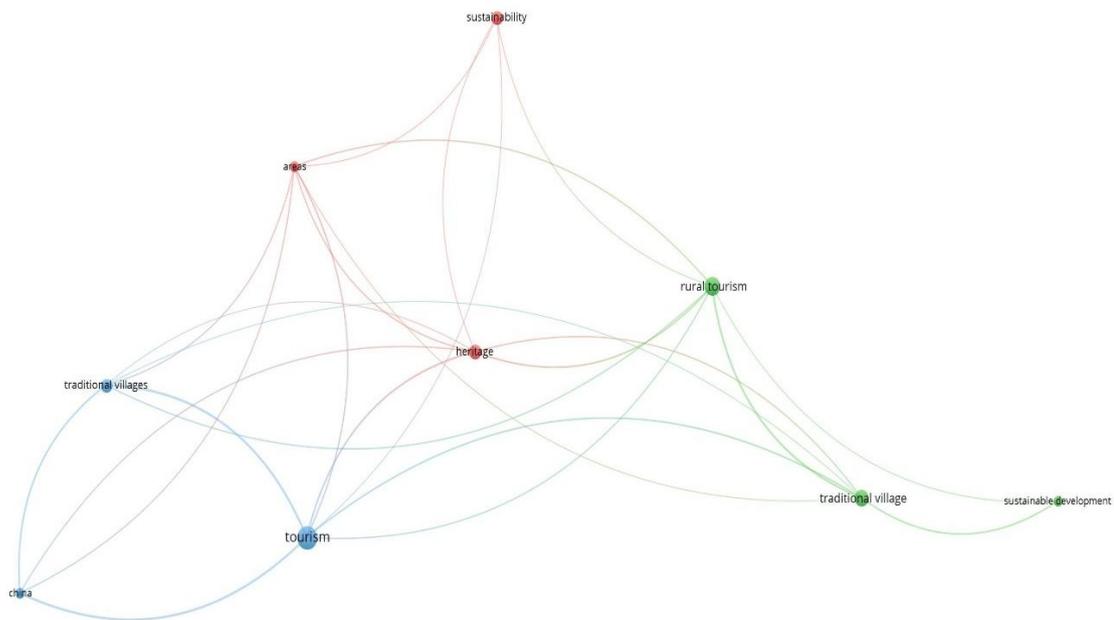


Fig. 2. Bibliometric analysis of 96 WoS publications based on 5-keywords co-occurrence for “traditional village”, “rural tourism”, and “architecture”

Source: Authors' processing using VOSviewer

For a better understanding of the connected concepts, the same 96 WoS papers were analyzed using 2-keyword co-occurrences (Fig. 3). Thus, tourism turns out to be the central point, being linked to major concepts such as: sustainability, traditional village(s), architecture, rural tourism, heritage, preservation and conservation, historic village, cultural heritage, etc. Via rural tourism, entrepreneurship is also one of the tourism-connected concepts. At this stage, the only country that appears is China. None of the studies bring up European destinations. A distinct research area seems to focus on rural activities, such as agriculture and manufacturing.

Some of the most relevant papers for the present research address the concept of traditional villages as tourism villages, where traditional houses become tourism lodgings. Vitasurya et al. (2018) point out that traditional Javanese houses are essential ingredients for the authenticity of the destination's rural tourism, with family bonds being the key factors for the preservation of traditional Javanese architecture. A group of Chinese researchers (Zhu et al., 2021) have focused on the sustainability provided by the transformation of farming villages into tourism destinations. Traditional tourism villages are considered genuine hotspots of Chinese tourism (Ma et al., 2017). Wang et al. (2023) emphasize the need to balance tourism development with heritage conservation in Chinese destinations, while Liu et al.

(2023) bring into discussion the need to consider villager satisfaction while developing rural tourism. Along the same line, Li and Wang (2023) point towards the importance of cultural authenticity in the development of rural sustainable destinations.

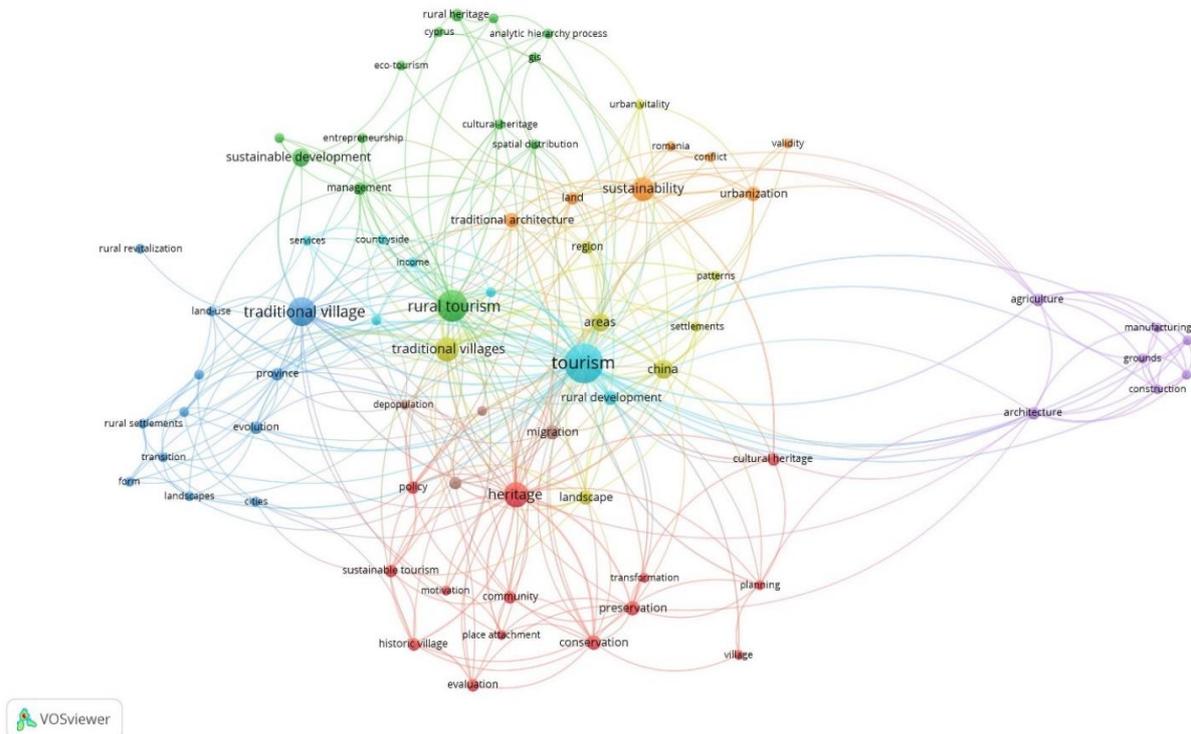


Fig. 3. Bibliometric analysis of 96 WoS publications based on 2-keywords co-occurrence for “traditional village”, “rural tourism”, and “architecture”
 Source: Authors' processing using VOSviewer

While the academic research and literature seem to be dominated by studies dedicated to China (with 60 of the 96 identified papers) and other Asian destinations, a limited number of articles address European destinations. For example, Ballesteros et al. (2021) discuss the importance of traditional building materials (namely stones) in traditional architecture and for the development of cultural and heritage destinations, with direct positive impacts on the diminishment of population loss in rural areas.

Tuğun and Karaman (2014) elaborated a conceptual framework for ensuring rural sustainable development. The framework encompasses the following principles: compact and efficient land use; improving accessibility and diminishing automobile usage; increasing resource-efficiency consumption, decreasing pollution and developing waste management strategies; natural system restoration; developing improved housing and living conditions and environments; implementing social

ecology models; developing sustainable economic systems; increasing community participation; and ensuring the conservation of local culture and knowledge.

Pavlović et al. (2012) analyzed the relationship between national architecture, protection, development, and tourism, emphasizing that traditional rural/folk architecture presents high value among tourists. The authors suggest capitalizing on such resources by organizing open-air (eco)museums. The same idea was also brought up by Ghorbanzadeh (2018) in the context of the villages' major challenges, namely, unemployment and job scarcity, which can be counter-fought by entrepreneurial initiatives in tourism and ecotourism. Building on the same idea, an interesting concept was developed in Croatia and some of its neighboring countries (Bosnia and Herzegovina, Serbia, and Montenegro), where ethno-villages were established by private entrepreneurial initiatives (Čiča & Mlinar, 2010). However, we consider that a more appropriate way of exploiting such resources is provided by the renovation of traditional houses and by transforming them into attractive rural lodging facilities.

Rural economic activities have also been brought up in various research papers, such as the potential of traditional oil mills (Yüceer et al., 2018), of local fisheries (Waldo et al., 2023), or wineries (Dýr, 2016a, 2016b).

While searching in the WoS database the following set of keywords: “traditional village”, “rural tourism”, and “demand”, 28 articles were identified. The network of 2-keywords co-occurrence is presented in Fig. 4.

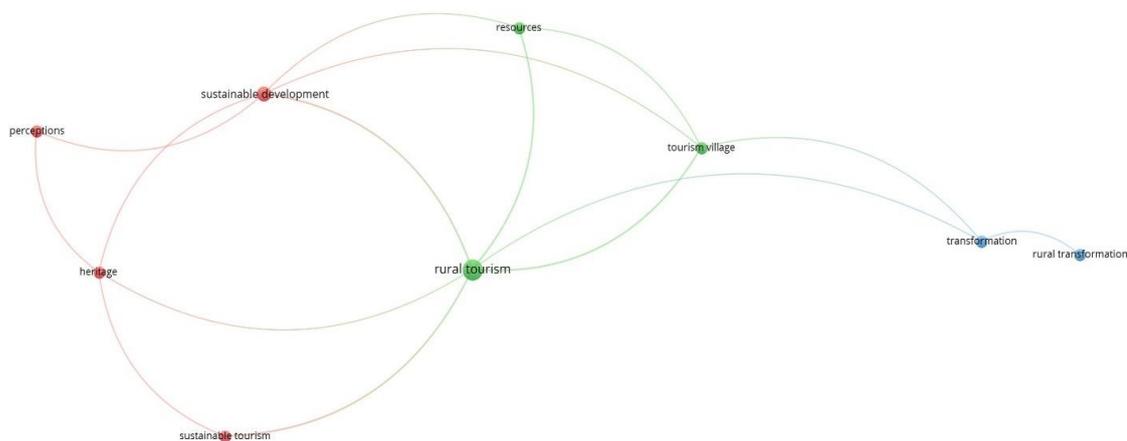


Fig. 4. Bibliometric analysis of 40 WoS publications based on 2-keywords co-occurrence for “traditional village”, “rural tourism”, and “demand”

Source: Authors' processing using VOSviewer

As Fig. 4 reveals, rural tourism is the core element, contributing to sustainable tourism, via heritage to perception generation, to sustainable development. Tourism villages are directly connected to rural tourism and have a positive impact on rural transformation and on managing resources.

Very few papers link rural tourism demand to the style of the lodging facilities and to the traditional architecture of the destination. The following paragraphs are dedicated to briefly discussing the studies identified in this respect. Jegdić et al., (2017) emphasize that rural tourism development should rely on investments generated by entrepreneurial initiatives that respond to contemporary tourism demand trends. While indicating that rural tourism can contribute significantly to the economic development of rural areas, Stankov (2007) also points out that such developments must be sustainable. Mountain area authenticity has been identified as a key resource for quality agro and rural tourism (Ciolac et al., 2013). Some studies addressed less-favored regions and their challenges related to (rural) tourism development (Hutárová et al., 2021). Armenian agritourism seems to be preferred by single international tourists who are willing to pay more than married couples with children; however, no information has been provided regarding the types of lodgings preferred by these tourists (Tovmasyan et al., 2020). Tomčíková and Rakytová (2018) discuss a highly valuable Slovak destination, Vlkolinec, where local people have excellently co-habited with nature over the centuries but also have high expectations regarding their standards of living.

Only very few studies addressing lodging services were identified. Two of these papers discuss diffuse hotels as innovative Croatian lodgings (Dragičević et al., 2015; Baćac & Demonja, 2021); conceptually, diffuse hotels are designed to connect small tourism providers into a complete tourism services supply that promotes authentic tourist services.

A very low number of research papers discussing Romanian rural tourism services were found in the WoS database. The first focuses on the Dorna-Călimani mountain area, emphasizing the need for local master plans to preserve the relationship between communities and protected areas (Chiriță & Matei, 2012). Vijulie et al. (2021) bring up one of the saddest realities from a highly valuable rural destination, Certeze, namely that of imported architectural styles that have generated the irremediable loss of rural architectural authenticity and landscape aesthetics. Kiraly and Bota (2014) discuss the importance of developing buildings in rural areas according to local traditions and the contribution of rural and agri-tourism to the conservation of the Transylvanian-built heritage.

4. A Brief Case Study of Authentic Romanian Rural Lodgings

Overall, the entire literature discussion has pointed towards the lack of studies dedicated to the attractiveness of authentic rural lodging facilities among tourist and their potential to become triggering factors for destination choice and development.

The analysis carried out on the various booking platforms and on the websites of the identified authentic lodgings have enabled the presentation of a synthetic situation of traditional houses transformed into lodgings in rural areas (Table 1).

Table 1. Synthetic presentation of the identified lodgings throughout Romania

	County/Counties	Number of Lodgings
Bucovina	Suceava	6
Maramureş	Maramureş	23
Danube Delta	Tulcea	9
Transylvania	Alba, Bihor, Bistriţa-Năsăud, Braşov, Harghita, Mureş, Sălaj, Sibiu (8 counties)	31
	11 counties in total	69 lodgings
	44 localities in total	

Source: Authors' elaboration

Up to this moment, a total number of 69 lodgings developed in traditional houses have been identified. However, more are expected to be further identified, as many of their owners and/or managers seem to neglect to a certain extent the importance of digital marketing. These lodgings are mainly present in Transylvania and Maramureş, followed by Suceava and the Danube Delta; these function in 44 localities, spread over 11 counties (Table 2). Many of these lodgings have been developed in destinations acknowledged as traditional rural areas, while others have been open in remote villages, where they themselves contribute to rural sustainable development.

Table 2. Localities with authentic lodgings

County	Village	County	Village
Alba	Cheia	Mureş	Apold
Alba	Glod	Mureş	Cund, Sighişoara
Alba	Runc	Mureş	Sighişoara*
Alba	Sălciuma	Sălaj	Brebi
Bihor	Groşi	Sibiu	Amnaş
Bistriţa-Năsăud	Ghinda	Sibiu	Cârţişoara
Braşov	Criţ	Sibiu	Porumbacu de Sus
Braşov	Sâmbăta de Sus	Sibiu	Richiş
Braşov	Şimon, Bran	Sibiu	Veseud-Agnita
Braşov	Vama Buzăului	Suceava	Breaza

Braşov	Viscri	Suceava	Câmpulung Moldovenesc
Harghita	Odorheiu Secuiesc	Suceava	Fundu Moldovei
Maramureş	Breb	Suceava	Gura Humorului
Maramureş	Budeşti	Suceava	Vama
Maramureş	Ieud	Tulcea	Crişan
Maramureş	Mara	Tulcea	Jurilovca
Maramureş	Poienile Izei	Tulcea	Murighiol
Maramureş	Ruscova	Tulcea	Sarichioi
Maramureş	Săpânţa	Tulcea	Somova
Maramureş	Surdeşti	Tulcea	Tulcea
Maramureş	Vadul Izei	Tulcea	Uzlina
Maramureş	Vişeu de Sus	Tulcea	Vişina

Source: Authors' elaboration

*Although not a village, Sighişoara has been included because it is a UNESCO heritage site that capitalizes on authentic architecture.

The development of rural tourism in Romania, particularly targeting millennials and baby boomers, can be significantly influenced by the preservation and promotion of traditional architecture. Romania boasts a rich cultural heritage and a diverse rural landscape that can attract this target market seeking authentic and immersive travel experiences.

Traditional architecture reflects the unique cultural identity of a region. Both millennials and baby boomers often seek authentic experiences that connect them with local traditions and history. Preserving and showcasing traditional buildings can provide a genuine sense of place, offering visitors a glimpse into Romania's rich cultural heritage.

5. Conclusion

Rural areas often have well-preserved historic buildings that tell the story of a community's past. Integrating heritage preservation into rural tourism initiatives can enhance the overall experience for tourists, fostering a deeper appreciation for Romania's architectural history.

Renovating and reconverting traditional buildings into lodgings, such as guesthouses, can attract tourists looking for unique and Instagram-worthy places to stay. The blend of modern amenities with traditional architecture can provide a comfortable, yet culturally immersive experience.

Traditional architecture in rural areas often complements natural landscapes, providing picturesque settings that appeal to tourists seeking relaxation and escape from urban life. To cater to the preferences of both millennials and baby boomers in rural lodging with Romanian traditional architecture, it is essential to strike a

balance between preserving the authenticity of the architecture and meeting the comfort and amenity expectations of modern travellers.

Further studies will be conducted to establish the entire supply of authentic rural lodgings and to assess their attractiveness among both Romanian and international tourists.

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Image-based presentation of traditional architecture of rural lodgings

Maramureș



Casa „Floare de nu-mă-uita”



Casa lu' Ion



Complexul tradițional „Casa din Vale”



Casa Moroșenilor



Transylvania



Casa Savri



Casa Bunicii



Convivium Transilvania



Veseud 11



OberWood



Castle Garden



Casa Glod



Gospodăria lui Nea Ion



Mesendorf Gasthaus

Casa Prințul de Țara
Galilor din Viscri

Raven's Nest



Amfiteatru



Danube Delta



Stufino Crișan



Sailors' Guest House Jurilovca



Casa Dima Sarichioi

Bukovina



Pensiunea „La Moară”



La Roată



Casa de Poveste



Casa Străbunicului



Source: Authors' elaboration based on the digital presence of the selected lodgings



Gastronomy Museums as an Element Bringing Forgotten Values to Light: A Proposal for Sinop Province

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ABSTRACT

The main purpose of this research is to measure the gastronomy tourism potential of the province for the proposal of a gastronomy museum in Sinop. The sub-objectives of the research include designing a gastronomy museum specific to Sinop, determining the strengths of the gastronomy potential of the province, and ensuring that this potential is included among the gastronomy tour routes. At the same time, it is aimed to provide a perspective on the importance of opening a gastronomy museum in the city in terms of the sustainability of gastronomic values in Sinop. In this context, the study analyzes the gastronomic values of Sinop and how these values can be made sustainable. Within the scope of the research, the content analysis technique was used as a data collection method. The gastronomic richness of Sinop and the contribution of these richnesses to tourism potential were evaluated. In this way, it is aimed at developing strategies to increase the attractiveness of the province in terms of gastronomy tourism. As a result of these analyses, Sinop's unique gastronomic richnesses and their contributions to tourism potential have been comprehensively evaluated. At the end of the study, strategies have been developed to increase the attractiveness of Sinop in terms of gastronomy tourism and to support sustainable tourism development. Suggestions include organizing local cuisine festivals, creating interactive and educational exhibitions within the gastronomy museum, branding local products, and increasing promotional

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activities. In addition, raising awareness and training local people and businesses about gastronomy and tourism are also among the suggestions. These strategies aim to maximize the gastronomy tourism potential of Sinop and contribute to the economic and cultural development of the province.

1. Introduction

With the development of elements such as technology, industry, and agriculture, changes have also occurred in people's habits. With the globalizing world, many sectors have been affected by this change. The tourism sector has also been affected by this globalization in line with people's desire to discover new places, sightseeing, and eating and drinking (Kozak et al., 2017). While people carry out tourism mobility, especially on the basis of the sea, sand, and sun, in order to take a break from their busy work tempo, changes have also occurred in these habits with the globalizing world, and alternative tourism types have emerged. One of these alternative tourism types is gastronomy tourism, which has gained popularity especially in the 21st century. Gastronomy tourism has come to the forefront with its attraction elements such as the culinary culture of a region or region, tours to examine local dishes, gastronomy festivals, and gastronomy museums. Within the scope of gastronomy tourism, many studies have been carried out in the literature, but it has been determined that there are not enough studies on gastronomy museums. In this study, some gastronomy museums operating in the world and in Turkey are mentioned. It has been determined that gastronomy museums operate in different themes. Considering Turkey's culinary culture, it is seen that the tourism sector and the academic field are of great importance. Considering the gastronomy potential of many different provinces from different geographies, it is thought to make significant contributions to the tourism sector. For this reason, the main purpose of this research is to introduce the culinary culture of Sinop province of gastronomy tourism, which will make significant contributions to the tourism sector, and to present a proposal for the opening of a gastronomy museum in the city in question.

2. Literature Review

2.1. Gastronomy tourism and destination marketing

Food is one of the basic necessities that individuals perform in order to sustain their lives and survive at the same time. However, in addition to basic necessity, the concept of food is also one of the leading roles of regional culture and identity (Quan et al., 2004). In the historical process, when people migrated for

various reasons in order to determine their living areas, culinary cultures were shaped (Düzgün & Durlu Özkaya, 2015). Gastronomy is a concept that reflects the food and beverage cultures of societies. It is stated that the concept of gastronomy is a concept that is becoming more important day by day and makes important contributions to the region (Selwood, 2003). The concept of gastronomy is also defined as the art of gourmet and good eating and the science of good food and beverage (Herbst et al., 2007). Another definition of the concept of gastronomy is “the accumulation of knowledge on every subject covering human life quality and nutrition” (Baysal et al., 2009).

Gastronomy tourism comes to the forefront in the use of its values as an attraction factor. People visit regions to experience food and beverage elements that they have not experienced before and to discover them due to their interest in different culinary cultures, and visit the producers, restaurants, festivals, and gastronomy museums (Long, 2003; Harrington et al., 2010; Yüncü, 2010). Special interest tourism is a type of tourism that individuals realize for their interests. Gastronomy tourism is also a type of tourism considered within the scope of special interest tourism (Tanrısevdi et al., 2003). Gastronomy tourism, which is considered within the scope of special interest tourism, has become a prominent type of tourism, especially in the 21st century (Aksoy et al., 2015). Destination is the name given to a country, city, or geographical region. This concept is one that varies according to people's reasons for traveling, their level of education, and the results of their experiences as a result of traveling (Buharis, 2000).

With the increase in visits in tourism with technological developments, each destination is in competition to improve its own image. This competition causes the intangible cultural heritage of the destination in question to become even more important (UNWTO, 2021). It is stated that a product or region must have attractiveness in order to integrate with the tourism sector and generate income. How and how this attractiveness will be marketed in tourism is one of the important issues that need to be known. It is stated that attractions will make significant contributions to the region by attracting the attention of visitors in tourism. In tourism, there are 4 concepts that are effective in making a product or destination attractive. These concepts are socio-cultural, economic, natural, and psychological elements (Kozak et al., 2017).

2.2. Examples of gastronomy museums

With the demand and development of gastronomy tourism, researchers from many different countries have recently taken part in various studies within the scope

of the tourism in question. Based on these studies, it is mentioned that Italy, France, and Spain are the countries that receive the most visitors under the title of gastronomy tourism in the 21st century. It is stated that these countries, which host gastronomy tourism, host visitors with their rich and valuable culinary cultures as well as their historical, natural, and cultural beauty and values (Öner, 2018; Belpınar, 2014). When Turkey is analyzed in terms of tourism, it is stated as one of the leading countries with its cultural heritage, natural beauties, culinary culture, historical background, and tourist attraction elements. In terms of culinary culture, Hatay, Şanlıurfa, Mardin, Mersin, and Adana provinces are stated as the leading provinces with their famous flavors through gastronomy tourism and have a great share in destination preference (Güzel Şahin et al., 2015).

2.2.1. World examples

It is stated that gastronomy museums, whose value is increasing within the scope of gastronomy tourism, have an important place in order to increase the attractiveness of the destination to be traveled (Demirci, 2021). Gastronomy museums are a route included in the visits of many local and foreign tourists. It can be defined as an area where those values are exhibited by bringing the culinary culture and forgotten foods to the surface (Sarı Gök et al., 2021).

The museum of cheese products includes free cheese tasting, various types of cheese, preparation of cheeses, and the and the history of cheese making. The cheese museum in the Netherlands is one of the best examples (Amsterdam Cheese Museum, 2024). In chocolate museums, visitors can taste many types of chocolate, such as hot, cold, white, bitter, sweet, solid, liquid, as well as hot, cold, white, bitter, bitter, sweet, sweet, solid, liquid, etc. (Girak, 2014). One of the leading chocolate museums is the Schokoladenmuseum Köln in Germany, which is becoming the center of attention of visitors (Schokoladenmuseum Köln, 2024). In olive-olive oil museums, the process of making, preparation techniques, and consumption of olive oil since ancient times are conveyed (Arıkan Saltık, 2017). Sparta Olive and Olive Oil Museum in Greece is one of the most important examples. It describes the stages of olive oil integration with cultural values since prehistoric times. The museum includes information boards on the use of olive oil by the Greek society (Gür, 2017).

Culinary culture museums are museums that help to introduce the local cuisine cultures of countries and regions. In the museum, many elements, such as tools used in the production of local dishes, wax sculptures, and tasting festivals, are exhibited. The Greek Gastronomy Museum, located in Athens, the capital of Greece, is one of the best examples of culinary culture museums and has been operating since

2014. In wine museums, vineyards, viticulture, tasting events, stages of wine production, and regional wine tastings take place. In this way, the wine history, culture, and promotion of the region in question are realized (Inácio, 2018).

2.2.2. Examples from Turkey

Kutman Wine Museum in Tekirdağ is one of the important examples. In this museum, the machines, tools, and documents that Adnan Kutman collected about wine for about 15 years have been exhibited in the exhibition area since 2003 (Kutman, 2024). Another example is the Emine Göğüş Culinary Museum in Gaziantep. It is the first culinary culture museum established in Turkey. According to the study conducted by Dere Yağar (2012), the museum presents the cultural atmosphere of the province in question, the process of making the yuvarlama dish, which is unique to the region, sausage, walnut, and bastık. The tricks to be considered in the making and cooking of Mirra coffee, which is famous for Gaziantep, are conveyed by mannequins dressed in local clothes. In addition to these, the tools and equipment used by the city, which is rich in food and beverage culture, while realizing these elements are exhibited. In addition to these, there are soaps produced from olives and oil (Adatepe, 2024). In Hatay province, the Museum of Medicinal and Aromatic Plants is the first and only museum in Turkey in this field and was established with the increasing demand for botanical and health tourism, one of the alternative tourism types. The museum has been operating since 2012 and aims to exhibit this valuable and endemic plant diversity and the sustainability of plants (Gökçe et al., 2017).

3. Methodology

The main purpose of this study is to bring to light the forgotten gastronomic elements of Sinop province and to present a proposal for the opening of a gastronomy museum in the said province. In this study, the document analysis technique, one of the qualitative research methods, was used. Yıldırım et al. (2008) defined qualitative research method as a qualitative process carried out by using qualitative data collection analyses such as document analysis, observation, and interview without ignoring the realism of the information obtained. At the same time, the qualitative research method seeks answers by examining some different social fields and the communities that make up these fields (Berg et al., 2019). For this reason, a semi-structured interview was conducted with an official working in the Sinop Provincial Directorate of Culture and Tourism.

4. Results and Discussion

Sinop province is defined as a province that has hosted many cultures over the centuries. Culinary culture has been shaped and maintained with societies migrating from different regions. Sinop has also been an important fishing center throughout history due to its coastal location. In the villages of Sinop, small-scale products are produced at home, but it is stated that they are not offered to the tourism market. These products are prepared organically in homes and offered to buyers in the village market (İpar et al., 2014). According to Yurt et al. (2022), it is emphasized that the diversity of local products has increased due to the rainfall due to the location of the province. As a result of the research, it was stated that there are products that are suitable for health and, at the same time, preserve their freshness throughout the region. It is stated that various herbs and vegetables grown in nature are frequently used in Sinop province (Genç et al., 2019) and that it has an important place in the use of fishery and seafood (Tırıl et al., 2017) by hosting the only natural harbor of the Black Sea. Sinop also has a rich biodiversity, and the tree species in the region are linden, oak, plane, pine, rooster, beech, hornbeam, chestnut, and poplar (Sinop Governorship, 2024). With the initiative initiated under the leadership of Sinop University, Sinop chestnut honey received a geographical indication certificate and gained brand value with the name SINATE, which was formed by abbreviating the names of Sinop, Ayancık, Türkeli, and Erfelek (Sinop University, 2024).

4.1. Gastronomic values of Sinop

4.1.1. Sinop keşkeği

In Sinop, traditional ceremonial keşkek is cooked on celebrations and special occasions. Although the production of keşkek in Sinop is similar to other regions in Turkey, it has been observed that the recipe has been differentiated with the use of unique ingredients with the mission of symbolizing abundance. When the culinary culture of Sinop was analyzed, it was found that there are many different recipes of keshkek. It has been determined that it takes place on the tables during Hıdırellez celebrations, weddings and circumcision weddings, religious holidays, soldier farewells, dental wheat for babies, and religious holidays (Ademoğlu & Durlu Özkaya, 2021).

It is said that during Hıdırellez celebrations, it is cooked by locals with prayers to wish fertility with additions such as chicken, meat, beans, and corn (Çek, 2022). For the development of tourism in Sinop, it has been emphasized that the tourism potential of the city will develop by keeping the culinary culture alive, introducing it to visitors, and considering its sustainability (Met, 2012).

4.1.2. Sinop mantisi

Mantı is defined as a valuable food that is formed by adding various products to the dough and is widely known in many countries. It is a traditional Turkish dish that is preferred by large masses and is a feast of flavor in the combination of dough and meat. It is stated that mantı, which is also combined with potatoes and cheese, is formed by bending and closing in rectangular and other shapes (Güler et al., 2020).

It is said that Sinop manti is one of the most favorite products of Sinop province that has received a geographical sign. Although its name has not been in vogue in the past years, today it takes its place as a very important product in terms of gastronomy tourism. Sinop ravioli is also pronounced as “ear dough” by the local people. It is said that its name comes from the way it is folded. It is emphasized that Sinop ravioli is preferred not only because of its folding shape but also because of the flavor and abundance of the filling. It is said that in the past years, meat was used in the filling, not minced meat. (Seçkin Sevinc, 2021) It is stated that Sinop ravioli is served with yogurt in half and walnuts roasted in butter in the other half after the ravioli is placed on the plate (Lezzet, 2021).

4.1.3. Sinop lakerdasi

Both in ancient times and today, with the arrival of spring in the Black Sea region, fish are frequently seen in the seas until the weather gets cold. The main source of livelihood in the Black Sea region has always been fish products (Aylak Lakerda, 2020). One of the oldest fish preservation methods was determined as the salting method. It is divided into two as dry salting and wet salting according to the size of the fish (Turan et al., 2006).

The history of Sinop Laker is based on a very long history. It has a very important place in the economic development of Sinop province. Sinop lakerdasi is desalinated in a salting container before it is offered for sale. After vacuum packaging, an amount of vegetable oil is poured over it. Before it is consumed, it is desalinated by soaking in water. (Turkish Patent Office, 2023)

4.1.4. Sinop nokulu

Sinop nokulu was taken under protection as of 25.04.2011 and registered by Sinop Chamber of Commerce and Industry on 15.17.2017. Sinop nokul is a type of pastry belonging to Sinop. The filling is made with minced meat, walnuts, and grapes. It is said that Sinop nokul was served only on the eve and feast days in the past years and was also served to the guests coming home. Today, it is frequently

produced in bakeries and patisseries in Sinop province and attracts the attention of tourists. (Turkish Patent Office, 2017)

4.1.5. Boyabat sirik kebabi

Sirik kebab is seen as an ancestral tradition. It is generally described as a dish that shepherds see from their fathers and grandfathers and pass on to generations. Sirik kebab is not a type of kebab that can be cooked in ordinary cookers. It gets its name come a tradition, especially in Boyabat and Saraydüzü, the districts of Sinop province (Akyol, 2018).

Boyabat sirik kebab was taken under protection on 21.05.2018 and officially registered on 28.09.2020. Boyabat sirik kebab is also known as *bandit kebab*. It has been made in this region for many years with Karayaka breed sheep, provided that it is at least 6 months old. The reason why this type of sheep is preferred is that it has a meat rich in fiber. (Turkish Patent Office, 2020)

4.2. Tools and equipment used in Sinop cuisine

The most important components of the food and beverage culture are the tools used to present the dishes. The tools and equipment in question are said to be a material element that has been shaped over time by trial and error. It is stated that people from the past to the present use these tools and equipment in order to continue their lives and to facilitate their work. These tools and equipment have changed from society to society in the past and have been shaped differently from geography to geography. When evaluated within the scope of Sinop province, the raw material of the materials was obtained from wood due to the physical conditions of the region. The tree species that are the raw materials of the tools used in the construction of the materials in the said province are ash, linden, boxwood, beech, fir, chestnut, and pine trees. The reason why these tree species are preferred is that the raw material used is water-resistant, knotless, soft, easy to process, light in weight, and fragrant. Accordingly, wooden cups, water storage bins, and jugs are made from fir wood because they emit a good odor; tables and dough troughs are produced from ash wood because of their hardness; rolling pins are made from linden and beech woods because of their flat, knotless, and soft structures; and mourning trees and dough shovels are produced from pine, chestnut, and fir woods because of their water-resistant properties (Acar, 2023).

Table 1. Tools and equipment used in Sinop cuisine

Tools and equipment used in Sinop cuisine	Purpose the equipment is used for
Aşurma	Large copper saucepan
Bardak	Water jug made of pine
Barmaklu Gaşuk	Fork
Bişek	Churn hammer
Bocuk	Small, round, stemless, pine or earthenware jug
Bocut	Small water jug made of pine wood
Bodaç	Small jug made of pine wood or earthenware, round, handle-less jug
Bodiri	Small earthenware water jug with pitcher and handle
Büşürgeç	Flat shovel used for turning bread and phyllo dough on a aking tray
Caba	Casserole, clay pot, earthenware pot
Capcak	Scoop-shaped tree on the sides of a fountain or well, mashpot
Cere	Soil testing
Çevirgeç	Wooden shovel for turning phyllo dough on an baking sheet
Çöven	Earthen pot with popcorn in it
Depme	Narrow-mouthed water jug
Dımbıl	Small churn made of wood
Dutak	Pot holder
Ergüç	Churn handle, knocker
Ersün	Flat iron tool for scraping or cutting dry dough stuck to the dough trough
Evcük	Churn hammer
Fişek	Churn hammer
Gesuç	Wooden tool for turning bread on a baking sheet
Gönce	Table cloth made of tanned leather
Gözer	Large sieve for sieving wheat, soil, etc.
Guvan	Churn
Güdü	Water jerry can made of wood
Hebene	Testing
Hereni	Cookware
Kadif	Tray
Kaşıklık	Spoon basket made of wood
Kebene	Water jug
Kecik	Handles, handles of boiler or saucepan
Keküç	Shovel for turning the bread cooked on a baking sheet
Kendürük	Tablecloth
Kersen	Wooden vessel in which dough is kneaded

Kesgüç	Flat wooden paddle for turning the bread on the hair
Keşüt	Flat wooden shovel for turning bread on a baking sheet
Medine	Small cupboards, without doors, on the kitchen walls, near the hobs
Oklaç	Rolling pin
Örsün	Iron tool for scraping the dough board
Senek	Water container carved out of pine wood, wooden jug
Sergen	Kitchen shelf
Sergi	Table cloth
Sırca	Porcelain plate
Silgüç	Dishcloth
Sini	Copper tray, tableware
Söngüye	A pole with a rag at the end for sweeping the oven
Sürgüç	Dishcloth, rags
Şapşak	Wood carved bowl cup
Şapşalak	Wooden mugs used for drinking water from a spring
Şarapkana	A tool for squeezing the juice of fruits such as grapes and apples
Tehne	Dishcloth
Tendil	Cookware
Tengere	Cookware
Test	Large basin
Tuluk	Water jerry can
Yassıağaç	Board on which dough is rolled out and food is eaten
Yayev	Tablecloth
Zöngü	Oven shovel

Source: Acar (2023)

Table 2. Usability of the elements in culinary museums in Sinop cuisine

Elements in culinary museums	Availability in Sinop province
Geographically marked products, dishes	There are 12 pieces
Information boards	May take place
Tools and equipment used since the past	It is included in Table 1 above
Mannequins showing the cooking process	May take place
Showcases	May take place
Exhibition of motifs of gastronomy products	May take place
Cooking, tasting and recipe section of local specialities	It can also be implemented in order to increase welfare through the local community
Restaurant department	May be of interest to incoming tourists
Museum logo	In the introduction
Souvenir department	May be favoured by visitors

Gastronomy library	Available from the local authorities
Chronological order of food culture history and standard recipes	Available from local people, authorities and academics in the region

Source: Bilir (2022)

When the sections of culinary museums are examined from a general point of view, it can be said that the opening of a gastronomy museum in Sinop is an ordinary situation due to the fact that Sinop province has a very rich gastronomic location. Based on the above-mentioned elements and with research from the sources, it has been evaluated that a section where the tools used in gastronomy museums are exhibited, a section where the tools used in gastronomy museums are exhibited, animations and showcase sections symbolizing the local people describing the production stages of local dishes animated with mannequins, and a museum house with information boards can be an important step in terms of significantly increasing the gastronomy tourism potential of Sinop province and ensuring the welfare of the local people, and at the same time, in the recognition of local dishes, Sinop local dishes can be an important step in terms of including more products among geographically marked products. The interview held at Sinop Provincial Directorate is given in Table 3 below.

Table 3. Interview questions and answers

First of all, we are working on opening a gastronomy museum in Sinop Province. Do you have any studies/projects in this regard?	“No project/study has been done for this yet, but it seems to me a very logical and beautiful project.”
What are your views on opening a gastronomy museum in Sinop province?	“I mean, gastronomy is a very detailed subject, and it is a very different innovation in Sinop. In some districts, especially herbs are very prominent, while in some districts, for example, there is more diversity in Sinop, especially in this kebab. We have done a lot of work on gastronomy. For example, we are organizing a Turkish cuisine week. At this stage, we are doing good work to present all of them, to make people taste and promote them. However, we had never thought of a project within the scope of museology. It is a good subject in terms of its feasibility.”
Do you think a gastronomy museum can take place in Sinop? If it can take place, which elements can it contain?	“Yes, it can be, it can be, but there are not many elements that we are assertive about gastronomy like the provinces in the east. Fish can be at the forefront in this regard. If more emphasis is

	given to this subject, we have actually come a long way in fish. Even ravioli has started to be made from fish. I think that if a very deep study is done at this stage, very good things can emerge.”
Can the opening of such a museum in Sinop province lead to an increase in the tourism activity of the province?	“I think it can happen, I think it can get people's attention.”

Source: Authors' elaboration

When the findings obtained from the interview in Table 3 are examined, it is possible to say that the gastronomy potential of Sinop province is high. For this reason, the fact that there has not been any project related to the gastronomy museum before emphasizes the importance of the study. It is said that gastronomy tourism is a fairly new phenomenon in Sinop. The place of the gastronomy museum is important in the cultural transfer of the province in question and, at the same time, in bringing the forgotten gastronomic items to light. Considering that gastronomy tourism is developing day by day, it is thought that although Sinop province has this potential, its flavors are not sufficiently recognized. In order to ensure the sustainability and recognition of local flavors, the establishment of a gastronomy museum in Sinop will ensure both the development of the city and the transfer of its values to future generations.

5. Conclusion

Museums play an important role in preserving and transferring cultural values from the past to the future. In many countries around the world, gastronomic values and culinary cultures are preserved and exhibited in museums. Gastronomy museums aim to preserve and transfer local dishes, which are cultural values and stand out in gastronomy, to future generations. Gastronomy museums also positively affect the destination image of the regions where they are located (Sandıkçı et al., 2019; Can et al., 2019). Therefore, gastronomy museums have a special importance in introducing and exhibiting the regional cuisine and revealing the recipes and tools that are about to be forgotten. Sinop is a province that stands out with its nature, culture, and gastronomy. Sinop has been home to many civilizations from the past to the present. Each of the civilizations that lived in the province in question has both shaped and developed the culinary culture and added beauty to the city, which is valued and famous for its ports.

Each of the civilizations that came and settled in different regions created a culinary culture in Sinop by reflecting their own culture. Over time, this culinary

culture has developed and expanded, and the local foods we see within the scope of today's Sinop flavors have emerged. Among these foods, there are also products registered with geographical indication. Sinop is a province that stands out with its natural attractions in terms of tourism. For this reason, in this study, aims to create awareness among the tourists who come for tourism mobility to taste local foods and the local people to transfer these local foods to future generations. The food culture of a region helps to understand the culture of that region. For this reason, it is possible to understand the lifestyles of provinces that are famous for a dish from their food culture. Visitors prefer to eat a dish on site in the atmosphere of that region. In this way, not tasting a local dish in the city where it is owned will give tourists a more unforgettable experience. This situation will also be very important for the welfare of local people and tourism stakeholders. According to the information obtained as a result of the research, it is determined that if a gastronomy museum is opened in Sinop, the welfare and tourism potential of the province in question will increase significantly. Some recommendations have been determined within the framework of all the results obtained. At the beginning of these recommendations, it is determined that it is necessary to open a gastronomy museum in Sinop in order to ensure the sustainability of the culinary culture of Sinop by protecting it, promoting these values nationally and internationally, not forgetting the kitchen utensils used in the kitchens from the past to the present, to increase the number of visitors coming to Sinop for tourism purposes, and to ensure the welfare of the city. Tourism stakeholders and local people in the province should be aware of the gastronomic potential and play an active role in promoting these flavors and values. In this framework, new plans should be realized with the increase in tourism mobility. Booklets with local flavors should be given to incoming visitors, and visitors should be made aware of this. With the positive feedback received, literature should be included in the literature for the opening of a gastronomy museum. It is recommended that the studies to be carried out in the province in question be carried out on the basis of all districts and villages. Care should be taken not to exceed the environmental, social, and psychological carrying capacity of the city during the increase in visitors. Tourism stakeholders in Sinop province should be included in the studies, and procedures for opening a gastronomy museum should be started. Considering the gastronomic values in Sinop, national and even international gastronomy museums should be examined, and plans should be started.

It is suggested that the gastronomy museum to be opened should include a restaurant section, a tasting section for local products, and a gastronomy library. At the same time, courses should be opened for local dishes of the region in order to

encourage local people. It would be more efficient for visitors to visit the museum with a guide. In the tasting section inside the museum, they should be encouraged to participate in the production stages with local clothes. Since Sinop is a province rich in fish diversity, fish can be exhibited in a section of the museum. Before starting to work on the opening of the gastronomy museum, gastronomy museums in Turkey and even abroad, if possible, should be visited and examined, and a planning scheme should emerge. This will help to make a museum plan by experiencing the atmosphere one-on-one and taking inspiration. In order to show visitors the existence of gastronomy museums and raise awareness, travel agencies can include visits to domestic and international gastronomy museums in their tour programs. In order for Sinop to develop gastronomy tourism, local people, tourism stakeholders, and academicians in the region should support the opening of a gastronomy museum. This group will play an important role in the opening of the museum. Deficiencies in advertising and promotion should be eliminated in terms of the recognition of the gastronomy museum. It would be useful to take the initiative to open gastronomy museums in provinces that do not have a gastronomy museum in Turkey. With the increasing access to and use of the internet in the globalizing world, creating a web page for the proposed gastronomy museum may contribute. By conducting academic studies and developing joint projects with universities, gastronomy museums can become not only a tourist attraction for the promotion of gastronomy culture but also an institute as a learning place, especially for students studying gastronomy and culinary arts. Future studies can investigate how gastronomy museums contribute to the region and the public.

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Evaluation of the Rural Tourism Potential of a Taurus Highland: The Case of Ağla, Köyceğiz

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ABSTRACT

Tourism is among the key sectors prioritised in both developed and developing countries due to its positive economic impact. However, the adverse environmental and socio-cultural impacts of mass tourism led to a growing interest in alternative forms of tourism. In this context, rural tourism, which is well suited to rural areas and offers various advantages in terms of environmental sustainability, is one of the most outstanding types of tourism. Located at an altitude of 800 meters, Ağla is a highland that maintains traditional rural characteristics in the Taurus Mountains in Türkiye. Alongside its natural beauty, Ağla stands out as an authentic rural area in Muğla due to its socio-cultural attributes dating back to ancient times. This study aims to evaluate the current status and potential of rural tourism in the Ağla Plateau in Muğla. Employing a qualitative research design, data were gathered through on-site observation and interviews. The data were subsequently analyzed using a SWOT analysis to identify strengths, weaknesses, opportunities, and threats in relation to rural tourism. The findings were assessed with a focus on sustainable rural tourism development. It has been evaluated that the limitation of rural tourism entrepreneurship of the local people is one of the weaknesses, while original cultural events, especially the Mahya festival held in Ağla

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Highland, have the potential to create significant opportunities for the development of rural tourism. The study was concluded with the suggestion to similar destinations and practitioners who give importance the sustainable development of rural tourism. In conclusion, it is recommended to give importance to rural tourism throughout the year by eliminating infrastructure deficiency, improving transportation facilities, improving accommodation and social facilities in Ađla, Kyceđiz.

1. Introduction

Tourism is a significant contributor to the economic growth and development of nations. However, the adverse environmental and socio-cultural impacts of mass tourism have led to a growing interest in alternative forms of tourism. The need for diverse tourism options has been underscored not only by the increasing number of tourists over the years but also by the dominance of sea-sun-sand tourism. Rural tourism, which offers numerous benefits for rural development, has emerged as one of the most prominent types of tourism in response to these shifts in tourism preferences. This form of tourism not only supports local economies but also preserves cultural heritage and natural landscapes, making it a more sustainable and enriching experience for both visitors and host communities.

In recent years, plateaus with significant tourism potential have emerged as key destinations within the rural tourism sector. These areas, often blessed with stunning natural beauty and a wealth of cultural offerings, are increasingly recognized for their ability to provide authentic and enriching experiences for visitors. In conclusion, rural tourism is a multifaceted phenomenon that enriches rural areas economically, culturally, and socially. It not only supports local livelihoods but also ensures the survival of rural heritage in an increasingly globalized world. As the tourism industry continues to evolve, the importance of rural tourism as a sustainable and community-driven form of travel cannot be overstated. In this context, this study aims to examine the current situation and potential of the Ađla Plateau in Muđla, in terms of rural tourism. It is predicted that the findings of the study will contribute to the limited literature and guide local government in sustainable rural development.

2. Literature Review

Since development in general is concerned with the improvement of people's economic and socio-cultural possibilities, rural development in particular aims at the welfare and development of people living in rural areas. For this reason, rural tourism is respected as an alternative or complementary to traditional/mass tourism types due

to its contribution to rural development, elimination of regional differences, etc. Rural tourism has been developing as a type of tourism, which is of great importance in terms of providing an additional income to the agricultural producer, whose income level is low compared to other sectors. Rural tourism addresses the economic, socio-cultural, and psychological problems caused by the density of tourists in the region. It also provides opportunities to “rescue” tourism from the hegemony of traditional mass coastal tourism and to benefit from the tranquil atmosphere of rural areas (Olalı & Timur, 1988).

Rural tourism serves as a cornerstone for the economic vitality and cultural preservation of rural areas. It not only generates employment opportunities for local inhabitants but also spurs investment in essential infrastructure, thereby fostering sustainable development. On the socio-cultural front, rural tourism plays a crucial role in safeguarding local heritage. It helps preserve traditional architecture, archaeological sites, and cultural landmarks, ensuring that these treasures are not lost to the sands of time. Moreover, it promotes the revival of cultural values and handicrafts, which are often integral to the identity of rural communities (McAreevey & McDonagh, (2011). The spectrum of rural tourism is broad, encompassing a variety of sub-branches such as agritourism, which allows visitors to experience farm life firsthand; farm tourism, offering stays on working farms; cave tourism, exploring natural and historical caverns; bird-watching tourism, attracting enthusiasts with its rich avian biodiversity; adventure tourism, providing thrilling outdoor activities; and highland/plateau tourism, which highlights the unique landscapes and climates of elevated regions (Uçar et al., 2017).

Plateaus are places where people generally live from the beginning of June to the end of August, geographically above sea level, with extraordinary natural environmental features (Gökçe, 2020). Plateaus have great potential for tourism with their natural beauty and clean air. Especially the intense pace, noise and polluted air of city life direct people to natural environments and plateaus become attractive destinations for those looking for such an escape. The virgin nature, mountains, lakes, forests and clean water sources offered in plateaus have an important place in areas such as nature tourism or ecotourism (Bilici & Işık, 2018). Plateaus are considered as a type of ecotourism in scientific studies (Yılmaz, 2010; Ijeomah et al., 2011; Anzaku et al., 2021) for people who escape from the noise of the city and want to be intertwined with a clean nature. There are also studies (Aytuğ, 2016; Bălan & Burghelea, 2015; Yılmaz & Gürol, 2012; Ahipaşaoğlu & Çeltek, 2006) that consider highland tourism as one of the rural tourism types.

Rural tourism, especially with the concept of sustainability tourism, has been a subject that has started to attract attention by researchers in the last decades. Although there are various studies that deal with the perspectives and attitudes of local people in rural tourism (Çeken et al., 2012; Uçar et al., 2012; Rahmani et al., 2013; Chuang, 2013; Falak et al., 2014; Mureşan et al., 2016; Ünal & Yücel, 2018; Baykal & Ataberk, 2020) the number of studies examining the subject in terms of plateaus included in rural tourism is limited (Dalgıç & Birdir, 2015; Dönmez & Topaloğlu, 2018; Lun et al., 2021; Qi et al., 2022). Therefore, it is important to carry out research on plateaus as rural settlements through various analyses in order to support plateaus to benefit from sustainable rural tourism development.

3. Methodology

This research is aimed at determining the current situation and evaluating potential of the rural tourism of Ağla Plateau in Muğla. In accordance with this purpose, a qualitative research design was adopted in the study as the main purpose of qualitative research is to reveal the knowledge hidden in social reality (Özdemir, 2010). The qualitative data of the research were collected by on-site observation and interview techniques. As stated by Briggs (1986), the interview technique is the most common data collection tool in the social science research field. Interview questions were based on a literature review (Uçar et al., 2012; Rahmani et al., 2013; Akbaş & Koday, 2020) and refined in discussions between researchers.

İslamoğlu and Altınaçık (2013) point out that in qualitative research, the sample selection should not be representative of a larger sample, but it should be deliberately selected in order to collect more information about the topic. In this context, the sample selection in this qualitative study considered the relevance of the sample to the research topic rather than the quantitative representation and representativeness of the sample. In this regard, field trips to the Ağla Plateau were carried out by the researchers to collect the research data between April and May 2023. Within the field trips, several stakeholders were interviewed: one representative at the municipality, the headman of the plateau, five residents, one owner of cafeteria and one owner of the market. The research data were examined through SWOT analysis to reveal strengths, weaknesses, opportunities, and threats in terms of rural tourism.

3.1. Field study

The study has been carried out in Ağla village of Köyceğiz district of Muğla province in Türkiye. According to the data of the Ministry of Culture and Tourism

(2022), Muğla hosted 4,429,781 domestic and foreign tourists in 2021 and was the third most visited province in Türkiye after Antalya and Istanbul. The most well-known tourist destinations in Muğla are Bodrum, Marmaris, Fethiye. However, Köyceğiz cannot get enough share from tourism, despite the natural beauties it has. Indicating the current situation and potential of different types of tourism in the region is crucial for the development of tourism in this district. The location of Köyceğiz district in Muğla in Türkiye is shown on Fig. 1.



Fig. 1. Location of Köyceğiz
Source: Muğla Map

Köyceğiz is in a special environmental protection zone and is known for the lake it gives its name to. In addition to Köyceğiz Lake, Sultaniye Hot Springs, Ekincik Beach, Sandras Mountain, Yuvarlakçay, Toplarlar Waterfall, Ölemez Mountain, Topgöz Canyon and Ağla Plateau stand out among the natural tourist attractions of the district (Uslu & Avcı, 2020). Ağla Plateau is located 11 km from Köyceğiz, and 67 km from Muğla city center. The plateau, which has an area of 17 thousand hectares is at an altitude of 800 meters (Fig. 2). Thanks to its location and natural vegetation, it is free from the typical summer heat and humidity of the Mediterranean Region (Karaağaç, 2006). In 2022, its population is an average of 467 people (TUİK, 2022). In this respect Ağla seems to have a potential for the rural tourism in terms of its location, rural society, natural beauties.



Fig. 2. Ağla Plateau

Source: Demir (2021)

3.2. Data collection

The semi-structured questionnaire form was used to collect data in this qualitative research study. In the semi-structured interview technique, the researcher prepares the interview form with the questions he/she intends to ask in advance. However, the researcher can influence the direction of the interview as it progresses by asking different side or sub-questions to allow the person to broaden and refine their answers. A major asset of semi-structured interviews is that they provide more organised and comparable information, as the interview proceeds according to a previously prepared interview form (Şimşek & Yıldırım 2006). The questions were determined in accordance with the topics discussed in the previous studies and the questions asked to the local people were examined in the relevant literature (Uçar et al., 2012; Rahmani et al., 2013; Akbaş & Koday, 2020). The semi-structured interview form consists of two parts: demographic information and open-ended questions to reveal the rural tourism potential of the region.

The interviews were held face to face in Ağla Plateau between April and May 2023. Snowball sampling method was applied to determine the interviewees. Accordingly, the first individual or institution to be included in the universe was selected by judgment or randomly, then the second person was selected with the guidance of the first interviewee, thus increasing the sample (Gegez, 2010). First, the headman of the region was contacted, and then the people he recommended were interviewed. In total 9 participants, namely, the headman of the plateau, 6 residents, a cafeteria owner, and a market owner) were interviewed. The interviews lasted between 25 minutes and 1 hour 15 minutes and average duration was calculated as 40 minutes. In the interviews, firstly, the study team and why this study was carried out were explained, and after a short conversation, study questions were asked to the

participants. Five participants gave permission for the interview to be recorded, and the interviews with the other 4 participants were noted on the interview form by the researchers without being recorded. Table 1 shows the socio-demographic characteristics of the respondents in the study.

Table 1. The socio-demographic characteristics of the respondents

Code	Age	Gender	Education	Status Occupation
P1	70	Female	Primary School	Housewife
P2	76	Male	Primary School	Headman
P3	41	Female	Master's Degree	Teacher
P4	44	Male	Master's Degree	Entrepreneur
P5	35	Male	University	Operator
P6	47	Female	Primary School	Operator
P7	69	Male	High School	Farmer
P8	71	Female	Primary School	Housewife
P9	43	Female	University	Entrepreneur

Source: Authors' elaboration

The participants are people who live in the Ağla Plateau and work in different professions and positions. When the professions of the participants are examined, it is seen that they are housewives (two people), mukhtars (one person), business owners (two people), entrepreneurs (two people), farmers (one person) and teachers (one person). It can be said that there is a balanced gender distribution of male (4 people) and female (5 people) participants. The level of education of the participants is quite wide and varies between primary school and master's degree. However, there are more primary school graduates (4 people). The age of the participants varies between 35 and 76 years, with an average age of 55 years.

3.3. Analysis

All interviews (audio recorded and noted) were transcribed in computer environment. The data were subjected to content analysis (Krippendorf, 2004), which is considered a useful method for making meaningful inferences from the text and establishing connections between concepts. Then, the obtained data were evaluated by SWOT analysis. The SWOT analysis is a strategic planning method used to evaluate strengths, weaknesses, opportunities, and threats in a project, firm or sector's performance (Akca, 2006; Ritonga et al., 2018). In this context, firstly, the *awareness and interest level of rural tourism in Ağla Plateau and its natural beauties and different features were evaluated through content analysis*. In addition, the *social, cultural and economic attractiveness and different features of Ağla Plateau and what needs to be*

done to develop rural tourism in Ağla were examined. Furthermore, the study evaluated the strengths, weaknesses, opportunities and threats of Ağla Plateau in terms of rural tourism.

4. Results and Discussion

4.1. The awareness and interest level of rural tourism

The participants are from the Ağla Plateau and are residents there, with the exception of three participants. However, the concept of rural tourism is not known to people born and living in Ağla plateau while people who settled and live in Ağla plateau from outside are aware of the concept. Although the participants stated that they did not know about rural tourism, it was seen that the tourism model they wanted to develop in their region was exactly rural tourism. In this context the statements of some participants are as follows:

P2: “I have never heard of the concept of rural tourism before, but what I understand from tourism is that if there is no tourism that I will generate income, if someone else will come to here outside and earn money from tourism, I don't want like that tourism.”

P8: “I have not heard of rural tourism before, but if this place will stay like this, if lots of tourists will not come and disturb us, of course tourism should improve here.”

The participants, especially those who have settled in the region from outside, see the development of tourism as a way out because the livelihood in the region is very limited. Others did not express a clear opinion. Some of the opinions are as follows:

P4: “We prepared two tents in our garden and started to host tourists here. The villagers who saw us started to build such structures in the garden of their houses.”

P2: “I don't know if tourism should be developed here. Someone came from outside and made our village coffee as a cafe. It hasn't been good.”

4.2. Natural attractions and different features of Ağla Plateau

All participants agreed on the richness and uniqueness of the natural beauties of the Ağla Plateau. Among the natural attractions of Ağla Plateau, the participants highlighted the rich and high-quality water resources, the beauty of its geographical structure, the silence, the diversity of flora and seen it as a difference compared to other places. Some of the opinions are as follows:

P7: “You will not find the taste of water here anywhere.”

P4: “There is no humidity and if you have your own vehicle, you can easily reach many seas.”

P1: “You are both quiet and calm, in the forests and alone with nature, the waters flowing beautifully. Everyone really wants to live here.”



Fig. 3. Natural beauties of Ağla Plateau

Source: Authors' own collection

4.3. Social, cultural, and economic attractiveness and different features of Ağla Plateau

It was observed that participants' views on the social, cultural and economic attractiveness and characteristics of the Ağla Plateau were more hesitant / unclear than their views on other topics. According to the participants, the most important cultural event in the region is the Mahya festival. Mahya festival is consisted of the celebrations which are held every year on the second Thursday of August in the Plateau of Ağla. The participants stated that even though sackcloth weaving is very important in the region, there is lack of sackcloth weaving craftsman in recent years. In addition, they stated that while the region used to make a living from agriculture and animal husbandry, they are now looking for different livelihoods.

P6: “The Mahya festival is still going on, but it used to be much better. Votives are cut, everyone is eating, no one is going back to home hungry.”

P3: “In fact, sackcloth weaving is a value that is about to disappear. It would be nice to show this to tourists. But in the absence of tourism, there is no one who takes care of cultural values.”

4.4. Things to do for the development of rural tourism in Ağla

Participants provided some suggestions for the development of rural tourism. Especially the improvement of internet and sewerage infrastructure was expressed by all participants. It is among the suggestions that there should be a restaurant where

local dishes such as keskek, casseroles, yoghurt and local herbs are served, the village coffeehouse should be run as it used to be, and the limited number of accommodation opportunities should be developed by alternative means such as lodges and tents. Another point emphasized by the participants is the lack of personnel. The prominent issues related to the development of rural tourism in the opinions were expressed as follows:

P9: “If rural tourism is to develop, the personnel shortage must first be resolved. Because we can't even find a worker to work in the garden.”

P5: “If you give tourism training to the local people, you will not only stay away from the naturalness of this place, but also prevent migration.”

P1: “It would be nice if there was a shuttle that would go to the center at least once a week. Those without a car cannot come here.”

P2: “If tourists come here, who will show them around, there is no one knows the foreign language. Also, there is no restaurant here.”

4.5. SWOT analysis results

Considering the findings of the interviews, SWOT analysis was conducted. The SWOT analysis results for rural tourism development in Ağla Plateau are given in Table 2.

Table 2. SWOT analysis for rural tourism development of Ağla Plateau

Strengths	Weaknesses
<ul style="list-style-type: none"> ▪ Suitability of climatic conditions and lack of humidity; ▪ Diversity of the primary supports of rural tourism such as local food culture (keskek, yoghurt, stew, etc.), traditional handicrafts (Sackcloth weaving) and natural areas; ▪ Silence environment without any noises; ▪ Located half an hour from the airport; ▪ A large number of very old trees and rich flora attracting tourists; ▪ Plentiful and flowing water resources; ▪ Trekking routes; ▪ Rich and high-quality water resources; ▪ Clear view of the sky; ▪ Festivities known as <i>Mahya</i> (popularly <i>Maya</i>) and/or <i>Eren Day</i>; ▪ Geographical advantage. 	<ul style="list-style-type: none"> ▪ Lack of trained and experienced labor force; ▪ Lack of urban transportation; ▪ Lack of rural tourism awareness; ▪ Limited number of accommodation facilities; ▪ Lack of strategic planning and public investment in the region; ▪ Lack of willingness of people to investment in tourism sector; ▪ Lack of tourism infrastructures (such as internet and sewage); ▪ Lack of information and conscious local people about highland (plateau) tourism; ▪ Lack of tourism businesses (restaurants, souvenir shops, etc.).

Opportunities	Threats
<ul style="list-style-type: none"> ▪ Development of home staying; ▪ Opportunities for tourism throughout Muğla in four seasons; ▪ Friendly society; ▪ Business areas, especially for housewives. 	<ul style="list-style-type: none"> ▪ Rural traditions gradually disappearing; ▪ Entrepreneurial spirit throughout the province is only among those who settle in the region from outside; ▪ High average age, lack of young population.

Source: Authors' elaboration

As shown in the table, strengths are mainly consist of natural beauties such as a large number of very old trees and rich flora attracting tourists, rich and high-quality water resources, clear view of the sky etc. The advantageous geographical location is also a major strength for Ağla Plateau, not only because of the climatic conditions, but also because of the closeness of the international airport. In addition, socio-cultural activities such as the Mahya Festival and inclusion in trekking routes also support the development of rural tourism in Ağla Plateau.

Considering the rural tourism potential of Ağla Plateau, important points stands out in the SWOT analysis at the point of development of Ağla Plateau as a rural tourism region. The lack of accommodation facilities, trained and experienced labor force and tourism infrastructures are among the important weaknesses. At this point, more sustainable accommodation models such as house staying and glamping facilities should be preferred in accordance with rural tourism rather than the construction of new buildings and hotels. Regions' weaknesses should be developed, and strengths should be highlighted with the support of local governments.

The freindly society who can be local tourism stakeholders with an authentic hospitality is an important opportunity for Ağla Plateau. The development of home staying and business areas, especially for the women may offer great opportunity for the rural tourism development. However it should be respected that rural traditions and local involvement is very important for the sustainable rural tourism, therefore some predictions should be made to prevent disappearance of the rural traditions, and the local youth leaving the Ağla Plateau.

5. Conclusion

This study revealed that Ağla Plateau, with its historical, natural, and cultural values, can be an important destination in the context of rural tourism. Although there are natural, cultural, and authentic supply sources in the region, it is of great importance to plan and develop tourism in a sustainable and comprehensive way due to reasons such as insufficient infrastructure, inadequacy of accommodation facilities, lack of personnel, and unconsciousness of the local people.

The fact that the rural tourism potential of Ađla Plateau has not been developed so far can be considered as a loss in terms of regional and country tourism. With the development of rural tourism, the structure in the region, the forgotten values, and its authentic structure will be protected and added value will be created by turning it into a tourism product. In this context, the strengths and opportunities of the region can be evaluated, and the weaknesses can be developed by acting together with the local government, local people, and entrepreneurs. Since the point that all the participants focus on is the lack of personnel, training to the local people about tourism will also support to solution of the employment problem in the region.

It is notable that there is great potential for tourism because the plateaus can be used in all four seasons. Although plateaus attract great attention especially in the summer months by offering the opportunity to be in touch with nature, they are often not used efficiently in terms of tourism due to the high altitude regions covered with snow in the winter season. However, making the plateaus open to tourism activities throughout all four seasons can create a great opportunity for the economic development of the region and sustainable tourism (Gülpınar Sekban et al., 2018). Suggestions for using Ađla Plateau in all four seasons are as follows:

- *Eliminating infrastructure deficiency.* The most important factor for the use of plateaus throughout the year is infrastructure investments. Basic infrastructure services such as roads, transportation networks, energy and water supply must be strong (Pirselimoglu & Demirel, 2012). In plateaus where snowfall is especially heavy in the winter season, measures such as snow-fighting equipment, salting and cleaning systems should be taken to prevent roads from being closed and to ensure that transportation continues in a healthy manner. In addition, strengthening the energy infrastructure is essential for hotels, restaurants and other tourist facilities in plateau regions to be able to provide service.

- *Improving transportation facilities.* It is very important for the transportation in the plateaus to be uninterrupted throughout the four seasons so that tourists and locals can easily access them. In high altitude regions, transportation problems can be experienced in the winter months due to heavy snowfall and blizzards. Therefore, opening snow roads, improving road transportation, creating alternative transportation routes such as cable cars and slope climbing routes will make the plateaus more preferred. In addition, opportunities such as ski slopes and walking paths in snowy areas can be provided for winter tourism.

- *Improving accommodation and social facilities.* The sufficient level of accommodation and social facilities in the plateaus is a critical factor in encouraging tourism throughout the year. Especially in the winter season, there should be

facilities built on the basis of sustainability that have strong heating systems and provide suitable shelter for the winter. It is extremely important that each facility is built without harming the environmental supply sources of the region.

The use of plateaus in all four seasons is possible not only by developing infrastructure and transportation facilities, but also by planning social, cultural and economic factors correctly. In order to be an attractive tourism destination throughout all four seasons, plateaus should develop a structure that presents their natural beauty, local culture and sustainable tourism principles in a balanced way. In this way, they can attract tourists throughout the year, strengthen the livelihood of the local people and create economic, social and cultural added value to the region by preserving the natural heritage.

The main limitation of this study is the data was obtained only from local people, entrepreneurs, and administrations due to time, duration, and financial constraints. Therefore, the results represent only the viewpoint of local people living in this area. It is recommended that further research on the subject consider not only the opinions of local people, but also those of tourists as another important stakeholder. Hence more comprehensive results may be obtained with research in which tourists are also included in the research.

Another limitation of the study is the obtaining of research data in April and May, i.e. in the spring months. Some of the local people living in the region come to the plateau during the warmer seasons (June, July, August). For this reason, collecting data in these seasons in future studies and determining the time interval when the plateau is dense in the studies to be carried out will provide convenience in reaching the data.

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A Study on Measuring Tourist Consumers' Intentions to Participate in Unusual Types of Tourism

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ABSTRACT

Tourists who are bored with the traditional understanding of vacation have entered into new searches. As a result of these searches, new types of tourism have emerged over time. These tourism types are gathered together under the title of alternative tourism. Alternative tourism types are known as tourism types that are shaped according to the tourism understanding of individuals. For this reason, the main purpose of this study is to determine the intention of tourists participating in tourism mobility to participate in extraordinary tourism types. Within the scope of the study, ten types of tourism characterized as extraordinary are discussed. The 408 participants who constitute the sample of the study were asked questions about whether they knew these types of tourism before and their participation intentions. The data were analyzed by applying the survey technique, which is one of the quantitative research methods. In the questionnaire prepared for the participants, information was given about what these tourism types include and how they are realized. The data obtained were subjected to frequency analysis. It was determined whether the participants knew which type of tourism before and whether they would participate or not. The data obtained as a result of the research

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1. Introduction

The technological developments accompanying the Industrial Revolution and the increase in economic prosperity, employment opportunities, and the diversity of transportation means have witnessed a significant increase in tourism mobility (Zengin et al., 2019). The tourism sector, which is considered one of the most profitable sectors worldwide, stands out as a mobility that creates a center of attraction for regions with various cultural, natural, and historical values when its use is correct, as well as its economic gains (Güngör, 2022). For this reason, the concept of alternative tourism emerged in the 1980s as a response to the problems caused by the excessive density and crowded environments caused by mass tourism in the carrying capacity (Wearing et al., 2009).

Alternative tourism encourages the efficient use of tourist resources, increases the tourism revenues of countries, and extends the tourism season. In this way, important steps are taken for the continuity of sustainable tourism understanding (Cesur et al., 2022). In line with individual demands, alternative tourism types are said to spread over a wide range. Although these demands are mostly to discover new places and get to know new cultures, it has been emphasized that it is an attractive element in destination visits within the scope of these tourism types (Uspanova, 2017). For this reason, it is possible to say that alternative tourism types can take place in a wide variety and range of areas by personal needs and demands.

Based on these definitions, it can be said that alternative tourism has an important role in understanding the interests and expectations of consumers, creating more suitable tourism opportunities for the target audience and thus further developing these types of tourism. In this context, this study examines some unusual tourism types that have emerged in line with the demands of tourists. It can be said that understanding the interest in these tourism types and determining the trends in these tourism types are important for the sustainability of the tourism sector.

2. Literature Review

2.1. Alternative tourism

Alternative tourism is a type of tourism that emerged to minimize the negative effects of mass and city tourism and is also formed by combining innovative touristic products and services (Batman & Ulasan, 2013). The changes in the tourism sector in the world have led to the emergence of various types of tourism depending on the

demands of tourists in purchasing (Yavaş et al., 2017). It is said that diversified tourism types have emerged as an alternative in the sector for tourists who want to go beyond the usual sea, sand, and sun holiday concept (Albayrak, 2013). Alternative tourism is a type of tourism that is often associated with the concept of sustainability. The reason for this is said to be that it is sensitive to the needs of local people. While this type of tourism benefits local businesses, it is also said to lead to a cultural interaction between the host locals and visitors (Prince et al., 2017). The purpose of alternative tourism is stated as providing economic support to the development of the region by avoiding excessive consumption of natural and cultural resources without deteriorating the quality of the environment and by including local people in the activities realized in tourism mobility (Akpınar Külekçi & Bulut, 2010).

Within the scope of the tourism in question, it is said that by spreading the seasonal and periodic tourism mobility throughout the year, significant contributions will be made to local development and employment opportunities in the region where the mobility will take place (Tekin, 2017). Alternative tourism, which overlaps with the understanding of sustainable tourism, is expected to make a significant contribution to the targeted sustainability in the future of the sector by realizing tourism mobility without ignoring the resource needs of future generations. (Duran et al., 2018) In their study, Baytok et al. (2017) mentioned that among the important issues that paved the way for the emergence of alternative tourism, unplanned and unbalanced development and the benefits obtained from tourism are not shared equally among local people and other stakeholders. This can lead to injustice and social imbalance in the tourism sector. Triarchi et al. (2017) defined alternative tourism as a small-scale practice that requires less investment and largely encourages the participation of local people. It is mentioned that this type of tourism exhibits the special characteristics of its type by minimizing the negative impacts on local people and involving local people in the decisions to be taken.

Based on these definitions, it can be said that alternative tourism is a type of tourism that encourages the protection of natural and cultural resources and the protection of these resources by local people. At the same time, alternative tourism plays an important role in minimizing the negative effects of mass tourism. For this reason, it can be said that it makes the tourism sector more inclusive and sustainable. It can be said that alternative tourism is a type of tourism that improves the traditional understanding of tourism, that is the influx of tourists on a large scale to popular tourist destinations called mass tourism. Alternative tourism, which emerged as a result of tourists' demand for change, can make significant contributions to

cultural interaction by being more in touch with the natural environment and local people and not ignoring the principles of sustainability.

2.2. Alternative tourism types

Alternative tourism, which was developed to reduce the negative effects of mass tourism on the natural, socio-cultural, and economic environment over time, has recently gained importance with the widespread understanding of sustainable tourism. The understanding of sustainability, which aims to use natural resources in a quality manner in the long term, also forms the basis of alternative tourism. Increasing environmental awareness and changing expectations of tourists have accelerated the development and support of alternative tourism at the same rate. However, the fact that countries want to generate more tourism income by continuing tourism throughout the year and that people are in search of different pursuits with their social and economic development are among the factors that are effective in the development of different types of tourism. At this point, it is an undeniable fact that Turkey has rich alternative tourism resources. To utilize this potential, alternative tourism needs to be further developed and expanded. If alternative tourism is analyzed in groups, nature-based alternative tourism, culture-based alternative tourism, specialized alternative tourism, and education-based alternative tourism types can be analyzed (Ceylan et al., 2019).

Nature-based tourism can be defined as a broad concept that includes nature tourism, green tourism, rural tourism, soft tourism, responsible tourism, and ecotourism. Any type of tourism that has nature in common can be included in this group. Nature-based tourism can also be defined as a type of tourism that aims to protect the balance of ecological systems. With this approach, it aims to positively improve the relationship between nature, people, the environment, and tourism activities. Nature-based tourism aims to minimize the negative effects and destruction of tourism activities on the environment and to protect the sustainability of both tourism and the ecosystem without harming the environment. Tourism types such as plateau tourism, mountain tourism, farm tourism, agrotourism, cave tourism, and river tourism are also considered under this heading. Nature-based tourism, which includes many activities such as fishing, plant observation, rafting, bird watching, nature trips, and walks, has recently gained more importance with increasing activities in Turkey (Pirselimoğlu Batman, 2019).

Culture-based tourism is defined as a type of tourism that aims to explore, learn, and experience both the intangible and tangible cultural richness of a destination (Tören, 2023). Recent political, technological, and economic

developments have led to changes in the tourism sector as well as in many other sectors. Changing consumption perceptions, especially in developed countries, have led people to prefer vacations not only for entertainment, recreation, sports, or faith but also for personal fulfillment and cultural development. According to the data from the World Tourism Organization, culture-based tourism is said to be the type of tourism that has shown the most development in recent years, and it is among the predictions that it will become more prominent in the future (Baykan, 2007). Cultural tourism also includes tourism types such as cultural heritage tourism, ethnic tourism, gastronomy tourism, city tourism, and pilgrimage tourism (Tören, 2023).

Special interest-based tourism, or special interest tourism, can be defined as a type of tourism that is carried out to deepen people's interest in their field of interest and to learn or experience the details of that field. Special interest tourism can be related to anything, although it is a situation that varies from person to person rather than anything specific. At this point, people travel to see the production sites or stages of the things they are interested in, to experience things they have not experienced before, and to get pleasure from them. Tourism types such as cycling tourism, wine tourism, shopping tourism, festival tourism, and diving tourism can be shown among special interest tourism (Alkaya, 2019).

Education-based tourism is defined as travel to acquire new knowledge, acquire new skills, learn a language, or continue or improve one's current education (Turpcu, 2019). Contrary to popular belief, educational tourism, which includes not only students and teachers but also every individual in society who has a desire to learn, includes the aim of learning something and the desire to acquire new knowledge. Student exchange programs, foreign language courses, and professional development courses are also within the scope of education-based tourism (Hançer & Aydın, 2022). In this context, youth tourism can also be called one of the types of education-based tourism.

Within the scope of this study, 10 types of tourism are discussed. These tourism types are listed below.

End of the world tourism: This type of tourism, also known as last-chance tourism, is the travel of tourists to a destination before it disappears completely due to climate change and other factors (Kucukergin et al., 2020).

Booze tourism (booze cruise tourism): This is a type of tourism that revolves around the activity of drinking alcohol, including brewery tours and alcohol cruises (Laylo & Shakhrizoda, 2022).

Apitourism (bee tourism): Apitourism is defined as a type of tourism that offers tourists the opportunity to experience beekeeping, taste bee products, and explore ecological bonds (Wos et al., 2013).

Jihad tourism: It includes travel to destinations to contact and cooperate with jihadist groups.

Ghost tourism: This type of tourism includes hotels seeking guests with the claim of being haunted, companies offering ghost hunts, and ghost walks (Thompson, 2010).

Mycological tourism (mushroom discovery tourism): It is defined as a recreational tourism activity that serves as a bridge between nature and culture where biocultural heritage is discovered by observing, collecting, and tasting wild mushrooms (Jimenez Ruiz et al., 2017).

Counter-tourism (focus tourism): It is a type of tourism that involves a tourist turning his/her back to the touristic product when visiting a famous tourist destination and taking photos of both the landscape and the touristic artifact from that direction (Laylo & Shakhrizoda, 2022).

Slum tourism: This type of tourism is defined as the travel of wealthy people outside their safe areas to experience the lifestyle of lower-income communities (Yıldız, 2019).

WWOOFing tourism (organic farm tourism): This type of tourism is defined as tourism mobility that takes place to experience organic and rural life, to get to know a different culture other than one's own culture, and ultimately to gain an extraordinary life experience (McIntosh et al., 2006).

Sagitta tourism (arrow tourism) is defined as a type of tourism that involves throwing an arrow on a map hung on the wall and traveling to the place where the arrow comes from on the map or choosing the region to be visited or the beginning of the trip by throwing an arrow on the map in the destination.

3. Methodology

The method followed during the research, the findings obtained, and the effective presentation of the results are of great importance. This research, conducted to examine the awareness of unconventional types of tourism under the title of alternative tourism and to measure participation in these tourism types, focuses on the population of tourist consumers who participate in tourism activities at least once a year. This study, conducted using a convenience sampling method, was carried out between March and May 2024 through a survey technique applied to 408 individuals. This study addresses 10 unusual types of tourism, including booze

tourism (alcohol tour tourism), apitourism (bee tourism), jihad tourism, ghost tourism, mycological tourism (mushroom discovery tourism), counter-tourism (focus tourism), suburban tourism, WWOOFing tourism (organic farm tourism), and sagitta tourism (archery tourism). In the survey, definitions of 10 unusual types of tourism were provided, and participants were asked for their responses regarding their intention to participate in these types of tourism. The data obtained from the survey forms are in SPSS. It was analyzed with the Statistical Package for the Social Sciences (SPSS) version 22.0.

4. Results and Discussion

Table 1 presents the frequency and percentage distributions of the individual characteristics of the 408 individuals who make up the sample group of the study.

Table 1. Findings on the demographic characteristics of tourist consumers

Variables	Groups	n	%
Gender	Woman	205	50,2
	Man	203	49,8
Age	18-30 years	213	52,2
	31-40 years	121	29,7
	41 years and older	74	18,1
Education Level	Primary-Middle School	12	2,9
	High School	54	13,2
	Associate Degree / Bachelor's Degree	292	71,6
	Postgraduate	50	12,3
Income Level	0 - 17.002 TL	115	28,2
	17.003- 30.000 TL	111	27,2
	30.001- 45.000 TL	89	21,8
	45.001 TL and above	93	22,8
Frequency of Travel	Once a year	162	39,7
	2-3 times a year	199	48,8
	4-5 times a year	26	6,4
	6 times a year or more	21	5,1
Preferred Person / Means of Travel	Alone	63	15,4
	Together with family	233	57,1
	With a friend	106	26,0
	Through tour	6	1,5
Total		408	100,0

Source: Authors' elaboration

When examining Table 1, it can be seen that women make up 50.2% and men make up 49.8% of the sample group consisting of 408 individuals in the study. When looking at the average ages of the tourist consumers participating in the research, it was found that the vast majority, at a rate of 52.2%, are in the age range of 18-30, and again, a significant portion, at a rate of 28%, have an income of 0-17,002 TL. When examining the educational levels of the participants, it is revealed that 71.6% are graduates of Associate's/Bachelor's degrees, and regarding the frequency of travel among the participants, it is shown that a significant majority, at 48.8%, travels 2-3 times a year. In the research, when participants were asked who they preferred to travel with, the most common response was with Family, at a rate of 57.1%. Table 2 shows the percentage distributions of the responses of 408 participants, who constitute the sample group of the study, regarding unusual tourism types.

Table 2. Findings on tourists' responses regarding unusual tourism types

Tourism Types	Awareness			Interest		Participation Intention		
	I know	I've just heard	I don't know	Yes, I'm interested	No, I'm not interested	Yes, I participate	Undecided	No, I don't participate
End of the world tourism	%14,7	%15,4	%69,9	%85,3	%14,7	%64,0	%23,3	%12,7
Booze tourism	%20,8	%13,7	%65,4	%51,0	%49,0	%40,9	%13,7	%45,3
Apitourism	%13,7	%14,2	%72,1	%41,4	%58,6	%26,5	%22,3	%51,2
Jihad tourism	%12,7	%11,8	%75,5	%17,9	%82,1	%11,3	%12,0	%76,7
Ghost tourism	%17,9	%14,0	%68,1	%58,1	%41,9	%38,5	%23,0	%38,5
Mycological tourism	%20,3	%13,0	%66,7	%60,5	%39,5	%47,1	%16,9	%36,0
Counter-tourism	%17,4	%12,3	%70,3	%65,7	%34,3	%54,4	%21,6	%24,0
Slum tourism	%19,6	%7,6	%72,8	%49,5	%50,5	%36,0	%19,6	%44,4
WWOOFing tourism	%20,8	%15,4	%63,7	%72,8	%27,2	%62,0	%15,4	%22,5
Sagitta tourism	%20,1	%10,8	%69,1	%70,8	%29,2	%59,8	%16,2	%24,0

Source: Authors' elaboration

In Table 2, when the participants were asked about their level of knowledge about tourism types, it is seen that the most known tourism types are booze tourism (20.8%) and WWOOFing tourism (20.8%), while the types of tourism that are not

heard of at all are Jihad tourism (75.5%) and slum tourism (72.8%). When the participants were asked which type of tourism is interesting or not, it was observed that the most interesting responses were end of world tourism (85.3%) and WWOOFing tourism (72.8%). The types of tourism that received the highest number of responses of “I am not interested” were Jihad tourism (85.1%) and apitourism (58.6%). When the intention to participate in unusual types of tourism was measured, it was found that the tourism types that received the highest percentage of “I would participate” responses were end of the world tourism with 64.0% and WWOOFing tourism with 62.0%, while the tourism types that received the highest percentage of “No, I would not participate” responses were Jihad tourism with 76.7% and slum tourism with 44.4%.

5. Conclusion

Alternative tourism, unlike traditional tourism, offers diversity according to the wishes and needs of individuals. At the same time, it is considered an understanding of tourism that supports the protection of environmental and cultural values while tourism mobility takes place. Each type of tourism serves different tastes and purposes. In this context, ten extraordinary tourism types, which are among the alternative tourism types, have been discussed. Participants' intentions to participate in these ten types of tourism were investigated. A little more than half (50.2%) of the participants in the study were women, while the majority of them were between the ages of 18 and 30. The higher proportion of young people in the age range of the participants may be a result of the fact that they are more inclined to new and alternative types of tourism, especially those that are considered to be unusual.

It was observed that the majority of the participants (71.6%) were associate degree and bachelor's degree graduates, and when the income ranges were examined, it was observed that the majority of the participants (28.2%) were 0-17,002 TL. In these results, it has been determined that tourists within the scope of youth tourism prefer or can prefer extraordinary tourism types more. Considering that this group prefers more innovation and diversity, it is possible to say that diversification in alternative tourism types will make significant contributions to the tourism destination. In terms of consumer behavior, it is possible to say that consumers are interested in new and different elements. For this reason, consumers' interest in the different makes them feel as innovative and exploring individuals. Touristic consumers can find a sense of value and belonging when they participate in a new type of tourism. Gaining a new and different experience also contributes to their

personal development. At the same time, this participation also leads people to gain different perspectives with the new experience.

For the development of these unusual tourism types, there are some suggestions for the participants that we consider within the scope of youth tourism. Promotion to this target group through social media, where they spend a lot of time, can make significant contributions to the development of these tourism types. Providing unique and interesting content to the target audience through social media and digital marketing strategies will encourage potential tourists to participate in tourism activities. At the same time, content that introduces tourists to unique and new activities in the destination can be created. This will make the destination a center of attraction. Collaborations with local businesses in these destinations will popularize tourism diversity, leading to both the development of the destination and the new tourism diversity. Touristic consumers' interest in what is different and new is an important innovation in terms of product development and market strategies. Collaboration and understanding of consumers' expectations by stakeholders will support participation in an innovative and unique type of tourism. Therefore, the adoption of trendy tourism diversity is important in terms of all the positive contributions mentioned above.

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ABSTRACT

Millennials are considered to cover individuals born between 1980-1996. This generation in literature is also described as the Internet Belt, Millennials, Echo Boomers, Generation Next, Nexters. The core values of this generation are innovation, independence, creativity, ambition and development. More egocentric than other generations, millennials are fond of brands, friends, entertainment and digital culture. Y-generation, a self-confident, educated generation, has a different perspective on business life, consumption style and social relations. In the next 10 years, millennials will make up 75% of the global workforce. It is estimated that vacation and travel will be an indispensable item for the Y generation. Therefore, it will reveal a number of opportunities for the travel and hospitality industry. There will also be differentiations in tourism trends for this generation, which prefers travel programs to have different experiences in travel and sightseeing preferences. Finally, examples of research on tourism trends among millennials (wellness tourism, camping, solo traveller, spiritual tourism and yoga vacations) were examined. This paper will contribute to literature in this subject and it can be said that this study has a quality that will lead to academic research and that it is a research that tourism sector can benefit from it.

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1. Introduction

Generation theory was born from the idea that individuals born in the same period and affected by the same economic, technological and political changes share similar values, behaviors and lifestyles (Chen, 2010, p. 132). Understanding generations is one of the issues that need to be addressed in many sectors. Similarly, understanding generations in the tourism sector contributes to the sector's making the necessary preparations in accordance with consumer characteristics, needs and expectations. More and more diversity between generations today plays an increasingly significant role in understanding tourist behavior.

The concept of “*generation*” is used both to categorize age groups defined as groups of people born at a similar time, and also to analyze people in various subjects, behaviors and characteristics. Today, the majority of individuals of the millennials are married, have double earnings, and have become a standard that guarantees good conditions for their children's personal development. For this generation, respect for ethics, multiculturalism, awareness of social problems, use of information and communication technology are of great importance. Millennials, who are extremely mobile, are individuals who travel willingly, move from one place to another and are not ready to make the decision to migrate quickly because of economic reasons. Millennials travel more than past generations, visit more places and discover more locations in their destinations. Although they spend more on their travels, they are more eager for interesting experiences and information (Vukić et al., 2015). They are especially environmentally friendly tourists who do not want to be more independent, who prefer travel for special interests rather than mass tourism.

In the tourism sector, in order to divide the market into segments and reach potential customers, the method of separating tourists according to age groups is preferred. In particular, an age-based segmentation is used to reach consumers by taking into account the similar characteristics, expectations and desires. In this context, the characteristics of millennials, tourist behavior, travel preferences and travel tendencies are emphasized in the study. In addition, the actual data of the research results on millennials are included. As a result of the researches, it has been determined that millennials especially those who go on business trips add touristic activities to their travels and love to experience adventure and new experiences. It has been determined that the millennials are interested in tourism types such as wellness, spiritual tourism, yoga tourism, solo tourism, and the demand for camping tourism has increased with the understanding of the importance of distance especially after the COVID-19 epidemic.

2. Literature Review

2.1. Generations

Although the multiple generation theory was first proposed by Mannheim in 1952, it gained its popularity with the work of Inglehart (1977) and Strauss and Howe (1991). Straus and Howe introduced the “generational theory” in 1991 and dealt with different eras with four acres, each alternating between 20-22 years. Within these acres, they grouped the generations with different characteristics (Traditionalists, Baby Boomers, Generation X and Millennials). In this theory, they mentioned that individuals born and raised at certain periods, within the same age group, have similar behavioral characteristics and that their behavioral characteristics differ with each new generation (Arslan & Staub, 2015, p. 5). Strauss and Howe's division of generations into groups according to historical data and Mannheim's holistic and sociological attitude are the two rival theories about generations in the scientific world. Although there is no scientifically definite and unconditionally accepted theory of generations, there are generally accepted groupings that are used to legitimize generations and handle them reliably (Strauss & Howe, 1997, p. 2; Benckendorff et al., 2010).

Assuming that the generation is an identifiable group of people who share similar birth dates and experiences of significant events in their developmental stages, there are four generations in scientific literature (Dolot, 2018). As a result of recent studies, Generation Z and Generation Alpha have been added to the Silent Generation, Baby Boomers, Generation X and Millennials. The characteristics of these generations can be briefly explained as follows (McCrindle, 2014):

- Silent Generation (Traditionalists): It consists of individuals who were born in 1945 and before.
- Baby Boomers: Born in 1945–1964, it is the generation of the baby boom and the economic boom.
- Generation X: It is the group born in 1965-1980 that grew up during the economic crisis of the 1970s.
- Millennials: Born in 1981-1994, it is the group that grew in the age of globalization and universal access to the internet.
- Generation Z: It is defined as the generation that was born after 1995 and uses modern information and communication technologies in every possible situation.
- Generation Alpha: The next generation from Generation Z consists of individuals born after 2010. This generation consists of children aged ten and under. Therefore, they are not considered in most detailed studies.

Millennials as a niche market are affected by the social environment and social media in their demands and consumption trends and their purchasing behavior (Madrigal Moreno et al., 2017, p. 140). While representatives of this generation rely on information they find on the Internet, face-to-face communication still has a significant impact on their choices. In addition to this, they tend to trust their friends and families more from their websites (Monaco, 2018, p. 4). Millennials are aware of what they can expect from a product or service purchased at any price. Therefore, millennials seek high quality in product and service delivery. However, they are willing to pay extra when they believe that the product, service or experience is worth it (Benckendorff et al., 2010, p. 159).

Millennials spend their income quicker than previous generations. The philosophy of their life is indicated in the motto “enjoy the date”. In addition, since it is very important for this generation to balance personal life and business life, millennials travel regularly and loves collective learning. At the same time, millennials constantly share their ideas and love to use their knowledge to be accepted as experts and to influence their peers (Madrigal Moreno et al., 2017, p. 104).

Millennials use personal computers more than mobile devices. However, they combine the use of the internet with more traditional communication tools (telephone or magazines, etc.) to gather information and make purchasing decisions. Their technological capabilities enable them to advertise positive or negative brands that they consider reliable. In addition, when brands try to communicate with millennials, they are able to establish an effective communication. In this sense, they can use digital marketing as a tool to get the ideas of millennials in offering attractive and special offers to millennial consumers, personalizing products and developing new products (Genç, 2019, p. 38). Millennials are heavily involved in consumption and they consume more on online sites and social media (e.g. Facebook). In this context, businesses need to train social network administrators to immediately respond to the demands of millennials and develop useful applications in order to make a continuous content update (Madrigal Moreno et al., 2017, p. 140).

2.2. Millennials' travel preferences

The desire of millennials to consume for experience purposes constitutes a large customer segment in hotels. It provides the opportunity to make easy comparisons with the travelers sharing their holiday experiences. In addition, since millennials have become the source of connection in mobile devices, it makes it easier to make a decision because it allows price comparison and therefore they make easier decisions to complete their shopping. Millennial tourists are now beyond a

niche market. Many destinations around the world allocate significant resources to develop the tourism segment for millennials.

According to a research by the American Center for Hospitality Industry Research, millennials will make up 50% of all travelers in America by 2025. Millennials travel preferences differ from traditional travel preferences. Millennials research on the destinations they will travel to, and exploring local heritage and traditions is the first reason for travel. In addition, 90% of millennial tourists want to have unique experiences that differ from their daily lives. Therefore, private sector and public institutions need to synthesize different age groups, their characteristics, life experiences, issues that are important to them, renew their products and keep up with the changing era in order to win the millennial consumers (Perçin & Mahmutoğulları, 2018, p. 14).

For millennial tourists, friendliness, flexibility and comfort are key words, and today 76% of millennials choose traditional hotels for their travels. Creativity is another subject of interest for the Y generation tourists who want to visit at any time and wish their favorite shops and restaurants to be open in the middle of the night. Environmentally conscious businesses with high social responsibility are attractive for millennials. For the members of this generation who prefer healthy and delicious foods, it is the most natural act for them to directly express their likes and to make critical comments immediately (Perçin & Mahmutoğulları, 2018, p. 14).

Some hotel businesses are making changes in their concepts for the increasing millennial tourists, and especially, they are implementing holiday and travel projects that include fast internet and the latest technological infrastructure. It is among the issues that should be taken into consideration by tourism businesses, where millennial tourists have high environmental awareness, love surprises, wonder about different experiences and visit places where they can establish intimate relationships. In addition, tourism businesses need to keep up with the change, as the majority of those who have recently traveled will be millennial tourists. Within this, the concepts of “personalized experiences”, “digital comfort” and “information required in social media” stand out as the three most important instruments (Avcıkurt, 2018).

According to a study conducted by Ehotelier.com website, the travel preferences of millennials can be listed as follows (Caroll, 2016):

- 21% of millennial tourists make their hotel choices via tablets and 55% via mobile phones. The rate of those who use desktop computers for hotel reservations is 87%. Desktop computers are still the most used tool for hotel reservations.
- According to the researches, it is found that this generation has benefited from early booking opportunities. It was determined that 31% of millennials made their

hotel reservations 1 to 3 months in advance, and 29% made their hotel reservations 1 to 3 weeks before. The rate of those who have their trips when there is more than 3 months left is 11%, and the rate of those who do it when there is less than a week left is 9%.

- While 65% of the respondents have traveled at least once in 12 months, most of them stated that they see these trips as an opportunity for business and leisure.
- 83% of millennials get advice for hotel accommodation from colleagues, family and close friends.
- Millennials also cited TripAdvisor as their most trusted source of online reviews with 81%.

3. Methodology

The aim of this study is to mention the importance of age segments for the tourism sector. Today, the majority of those who participate in tourism activities are Y generation. For this reason, the characteristics of the Y generation, tourist behaviors, travel preferences and travel tendencies are emphasized. In this study, literature review and document review, which is one of the qualitative research methods, was carried out. In the study, an index study was made about the tourism trends of Y generation tourists in recent years. National and international theses and articles that can be accessed within the scope of the research were carried out by scanning. It has been determined that the Y generation is interested in tourism types such as wellness, spiritual tourism, yoga tourism, solo tourism, camp tourism.

4. Results and Discussion

4.1. Trends in millennial tourism

Millennial tourists, who are the main source of the postmodern tourism paradigm where advanced technology and individualization are experienced, gave their first members in the 1980s. It is an important generation that is currently engaged in tourism behavior and will be a potential tourist for a long time in the future. Millennials, whose expectations and demands differ from previous generations, are extremely sensitive to the environment, are interested in the culture of their destination, and always desire to learn and experience unique experiences, and are indispensable elements of the “new tourism”. According to the concept of “new tourism”, in the 21st century, visitors are individuals who attach importance to ecological and sustainable development and enjoy authentic experiences. This situation reveals the changing tourist profile (Seçilmiş & Köz, 2015). Some of the tourism trends of millennial tourists are explained below.

Generation Y members whose expectations and demands differ from previous generations, who are extremely sensitive to the environment, who are interested in the culture of their destination, and who always desire to learn and experience unique experiences are indispensable elements of the concept of “new tourism”.

4.1.1. Wellness tourism

Wellness tourism, which is a type of tourism that covers both physical and mental health, is especially preferred by those who care about their health, and those who aim to escape from the negative effects of modern life. Wellness is a life philosophy based on being healthier by keeping body, spirit and mental health in balance (Ergüven, 2010, p. 1). Wellness is defined as a combination of health and happiness, and body care is included in the scope of wellness with nature and natural products such as massage, skin care, thalassotherapy, mud and moss baths, bathtub treatments that make the person feel mentally, physically, mentally and relationally well and fit (Değer, 2020, pp. 311-312). Recently, the demand for businesses providing wellness services has been increasing especially for the purpose of physical health and beauty. For this reason, hotel businesses also have SPA and Wellness centers within their structure in order to respond to customer demands.

Thanks to detox, meditation and various therapies provided by experts in wellness businesses, it gives the person the opportunity to regain body health with detox (purification from toxins), which eliminates many problems such as unnatural medicine, processed food, accumulation of polluted air in the body, chronic fatigue, sleep problems. In addition, it provides the opportunity to get rid of the negative effects of the intensity of work life and stress with meditation and various massages. Although all aspects of wellness tourism are at an important point, the place of spiritual wellness has become more important in recent days. Nowadays, tourists tend to seek new life experiences rather than travel exclusively for cultural, social or leisure purposes. With these new experiences, tourism creates a spiritual journey for tourists, and travels arrive at yoga tourism, a gateway to spirituality. In short, the spiritual dimension is part of new forms of tourism. One of these parts is wellness and the second is holistic tourism. Holistic tourism gains power in the modern world with tourists following programs and experiences that they believe will provide balance in their lives. The desire of tourists to have a holistic harmony between body, soul and mind and to experience an inner life by moving away from the routine life order has created a new segment for spiritual experiences. Some researchers define this new tourism as a high-level prosperity product (Rocha et al., 2016).

4.1.2. Camping

Camping is a form of recreation performed by making use of accommodation vehicles such as tents, huts, caravans for different purposes such as having recreational or sports activities in nature, staying for a short time, resting. Campings / camping areas, which are the places where this activity is held, are areas that are established in highways routes and their immediate surroundings, at city entrances, in places with natural beauty such as sea, lakes and mountains, and where campers generally meet their overnight, eating and drinking, entertainment, recreation and sports needs with their own means (Aksöz et al., 2020, p. 448). Camp tourism stands out as a lively accommodation vehicle, especially in terms of symbolizing “freedom”.

The number of caravaners described with the analogy of “the snail carrying its house on its back” (Lashley, 2015, p. 115) is increasing day by day. Especially during the pandemic period, camping and caravan tourism has become a more demanded tourism activity in order to provide a comfortable social distance and to avoid the risk of contamination. In this respect, camping and caravan tourism is among the preferences of those who are in search of “isolated vacation” (Şengel et al., 2020, p. 1435).

Camp tourism offers an opportunity to increase the welfare of the local community as well as protecting the nature. On the other hand, it includes positive features such as ensuring the development of regions that are less developed in terms of tourism, bringing together tourists and local communities at a common point and providing interaction between them. Besides, in addition to protecting the environment, it provides the opportunity to integrate the individuals with the natural life, to rest in the countryside, to experience the local cuisine, to see the diversity of animals and plants closely (Aksöz et al., 2020, p. 448). Among the factors that are effective in participating in camping tourism are being economic, socialization, and desire to be in the natural environment, environmental and spiritual factors. The characteristics of camping tourism that are effective in individuals' preference for camping tourism are as follows (Sarı, 2007, p. 318):

- being places with natural beauties such as rivers and forests;
- to give nature lovers the opportunity to live in nature;
- to raise environmental awareness;
- economic contribution to the region;
- having the freedom to take a break and pause at will;
- it allows the balance of nature without concreting;
- providing accommodation diversity;
- attractive for individuals of all ages;

- bringing people with similar hobbies together;
- it covers four seasons.

4.1.3. Solo travel

The history of solo travel goes back to the travels of backpackers. In the 1990s, the terminology “backpacker tourist” began to be widely used for the concepts of an explorer or researcher. Although the term “backpackers” are frequently used in tourism literature, today, solo travel movement is becoming more common, defining individuals who want to travel alone and experience a sense of discovery (Pereira & Silva, 2018, p. 135). This type of tourist is young and a budget tourists who spend a long time on vacation (Loker-Murphy & Pearce, 1995). Most backpackers travel alone or in small groups, seeking suitable travel conditions, and are very flexible in their accommodation and tourism preferences (Scheyvens, 2002). This tourist group seeks experiences that are a journey of discovery and wants to explore unusual places. Nowadays, demographic changes, people staying single for a long time, increasingly active elderly population and changes in lifestyles affect the travel decisions and demands of tourists (Valaja, 2018, p. 5). From this point the reasons people prefer solo alone are as follows:

- being responsible for person's own travel program;
- loneliness (solitude);
- freedom and independence;
- to meet new people;
- being on the to-do list;
- self-reflection and energy gathering;
- a sense of feeling strong.

Although solo tourists are of all ages, middle-aged single women and men who live in large families and want to travel alone are predominant. Especially in studies for women traveling alone (Yang et al., 2018; Kaba & Emekli, 2018; Valaja, 2018) it has been shown that solo travel is due to changes in social structure and lifestyle and is among the fastest growing tourism market segments. Many solo female tourists seek exotic places and cultural experiences. Others are interested in quiet adventures. Young solo tourists (18-35 years) traveling alone enjoy meeting new people during their vacations. There is a high proportion of male travelers traveling alone to meet new people on their travels. Women traveling alone often prefer excursions such as active and exotic holidays and African safaris. Men, on the other hand, participate in solo trips with demands such as cycling and sailing.

Solo travel statistics (2019) reveal that nowadays the solo travel market constitutes 11% of the total market, and 84% of these are female tourists. Solo female bookings increased by 45% between 2015 and 2017, and 72% of women in the US prefer to travel alone (Solo Traveler, 2019). Similarly, according to the 2018 China Travel Consumer Report, young women born in the 90s and 2000s also prefer to travel independently. According to the study of Yang et al. (2018), many women found that as a result of freedom, independence and economic improvements, they started traveling alone independently. Solo travel is not only considered an escape for women, but also an experience that offers certain opportunities to emancipate with a travel that suits them socially (Karagöz et al., 2021, p. 1).

The most important criterion in destination selection for solo tourists is security. While married solo tourists generally prefer domestic travel, solo tourists are more likely to choose international destinations. After cities and towns, beaches and mountainous areas are the places preferred by solo tourists. According to European tour operators, solo tourists are looking for more adventure. Popular solo tourism destinations in developing countries are Costa Rica, India, Laos, Nepal, Sri Lanka, Vietnam (CBI Ministry of Foreign Affairs, 2018).

In recent years, there have been a serious spike in demand for personal development and learning holidays. This situation is changing in line with the new travel trends of tourists for personal development and personal enrichment. Among these new trends, meditation, yoga / pilates, weight loss, detox programs, cooking classes, creative writing can be given as examples. Such self-improvement activities are well suited for solo tourists (CBI Ministry of Foreign Affairs, 2018). Many people who plan solo travel are considering adding personal development programs to their travel programs.

4.1.4. Spiritual tourism

Tourism trends are changing and being renewed very rapidly. With the changing and diversifying life styles, it also rapidly differentiates people's expectations from touristic travel. With spiritual travels, tourists want to get away from modern living conditions and bring together cultural discoveries about themselves and the world, and they are in search of the meaning of life. Tourists are able to transfer their endless experience to their worlds by assimilating local culture, belief systems and traditions by establishing a deeper relationship with nature through such travels. Thus, they find calmness, happiness and peace.

In addition to being a journey to a sacred place, temple, belief center that allows one's beliefs, spiritual tourism is a search to find his own essence. In contrast

to the principle of “tourism behavior is temporary and short-lived”, spiritual tourism aims for the tourist to gain experiences that can be valid not only during their travel, but throughout their life. Because at the basis of spiritual tourism are travels that enable the discovery of the inner world and the self rather than acting with religious beliefs. Although spiritual tourism is seen as travel for different purposes such as finding healing in tourism and paying bail, it is a phenomenon that is not known in its scope. However, while it is as old as religious travels, it is one of the oldest travel purposes (Trần, 2013). Visiting religiously holy places such as Mecca, Vatican, Bethlehem (Jerusalem) and India for centuries shows that spiritual purposes were also dominant in ancient times (Rawal & Sah, 2017; Altınay Özdemir et al., 2018, p. 594). Nowadays, with the increase in per capita income, ease of travel and the aging of the population, more and more people participate in overseas travel to be involved in spiritual tourism. Spiritual tourism is recognized as an emerging tourism niche market segment, attracting tourists from all social, cultural and economic segments (Haq, 2015).

The concept of spiritual tourism is based on the philosophy of “the harder the journey, the greater the reward”, which expresses the desire for a comprehensive change rather than the comfort of daily life (Phukan et al., 2012). For this reason, at the basis of spiritual tourism lies the “motive to find the inner self by experiencing the difficult and ordinary life”. This desire to find oneself is possible not only from a religious perspective, but also from a spiritual perspective. Because spiritualism is not always characterized by religion, it is also closely related with the nature or travel to the countryside, recreation, health and culture. Spiritual tourism, which encompasses all these areas, allows tourists to shape their own lives by staying alone with themselves (Trần, 2013).

Spiritual travels are interpreted as “a contemporary and cultural movement”. A psychological quest embedded in the spiritual travel practices of spiritual tourism movements that encourage the use of mind while developing spirituality has brought spirituality tourism movements with it and turned it into a field that can be studied and also applied. The role travel takes in the movement in the pursuit of contemporary spirituality is seen as an interruption to the daily routine pursuit, and also causes spiritual popularity as a reason for the tourism experience. Within the scope of the tourism movement, if spirituality is the main goal, the idea in search or self-discovery will definitely become an accessible travel to experience renewed connections with others or to take advantage of the opportunities offered by life. In this case, spiritual tourism forms touch people, promise to change and improve them (Kandemir Altunel et al., 2020, pp. 156-157).

4.1.5. Yoga tourism

The word *yoga* means “unity” (Aggarwal et al., 2008), and although its roots started in India around 3300 BC (Atkinson, 2010), it is a world-renowned bodily experience whose material and spiritual practices are now known beyond the borders of India (Strauss, 2002). Yoga is a philosophical phenomenon that teaches people to keep their five senses and brain under control. The main goal of yoga is to bring the person to self-awareness. In addition, yoga is regarded as a tool that facilitates a person's intimacy with natural environments and provides transformation into well-being in terms of physical, mental and emotional health (Osho, 2005). Yoga is a path of tranquility that allows people to reconnect to their primary source, due to imperatives, emotional intensity, ego and the complex order created by the human (Mana, 2011).

Yoga, which is the inner path of beliefs based on Indian philosophy, is the ability to give one's thought, emotion and attention to a single point with the state of deep thought, enthusiasm and immersion in spiritual states in order to reach the highest level of knowledge. Yoga, which forms a whole with meanings such as breaking the desires of the soul and training, is the highest level that a person will reach spiritually in order to attain freedom, peace, tranquility and salvation (Şenel, 2018, p. 28).

Yoga tourism is a type of tourism that focuses on the unification of the body, mind and soul, that relaxes and brings peace to people spiritually. The breath and the self are trained in yoga; meditation, physical asanas and breathing techniques are applied to strengthen the body, calm the mind and ultimately provide spiritual enlightenment. Thus, the road to enlightenment is opened and tourists who prefer this route find themselves in yoga tourism (Smith & Kelly, 2006). One of the reasons for the increase in yoga-related travels is the increased interest in activities such as meditation and spa within the scope of health tourism. Another reason is that yoga has begun to be a big step towards spiritual development. Stress, ailments, insomnia, difficulty of city life, fatigue etc. faced by people in modern society life encourage people to participate in yoga tourism due to reasons such as being in touch with nature, desire for an authentic life experience and longing for spiritual peace (Bowers & Cheer, 2017). The person practicing yoga rises as mind and spirit, dominates his body using his brain, and besides physical relaxation, they continue their life by changing their life standards as a philosophy of life (Kandemir Altunel et al., 2020, p. 154).

5. Conclusion

The majority of the population around the world consists of people born between 1980 and 1996. Today, the young and new adult generation isn't at all like the previous X generation, who took their families as role models. It is a generation that doesn't like monotony at all. Millennials, who use technology effectively and actively, has a tendency to adopt by obtaining information about fashion and trends quickly. When the tourist behavior of this generation in making travel decision is examined, features such as entertainment seeking, price tracking, motivational action, perfectionist-seeking high quality, pursuit of innovation, adherence to preferences draw attention. In addition, 9 out of every 10 millennial tourists are definitely in search of a new experience during their travels and research about the destination they will go from various information sources before going out on the trip. In terms of travel preferences, “personalized experience”, “digital comfort” and “social media” are indispensable for the millennials who seek adventure and discovery.

While planning their travels, they make reservations online and use social media more actively. They consult their friends and circles to read the comments of travel and accommodation businesses on social platforms, to evaluate their experiences and recommendations, and to make purchasing decisions. In this context, it is very important for tourism businesses to keep up with the times, to follow technological developments and to use social media effectively for customer satisfaction and customer continuity.

Millennials, who will determine the shape of the tourism sector in the near future, demand to discover new experiences such as excursions full of activities, authentic experiences, spiritual relaxations and purification, freedom instead of the general tourism trends, which are the relaxation and rest-oriented tourism approach shaped in the sea, sand, sun triangle. Although the older generations still have a tendency to relax and rest, millennials prefer tourism types that are focused on personal experience, called “experience tourism”. Millennials, who tend to experience the life of the local people living in their destination and explore more virgin areas, adopt more freedom to travel with less goods. Many destinations from around the world are allocating resources to develop tourism segments for millennials. At this point, tourism enterprises should direct their activities by taking into account the expectations and travel behaviors of this generation.

Broad transformations in people's quest to do different things in their lives have started to change the travel pattern and gradually direct it to the destinations where spiritual, physical and mental activities are performed. In addition, the

principle of “finding one's own essence” comes to the fore in the travels of this generation. Going deep into their own culture, understanding their ancestors and finding their own essence are also an important travel goal for this generation. In addition, people can communicate with local people and have authentic experience, taking into account the principles of sustainable development and they are among the current tourism trends.

With the changing social order, people's lifestyles have begun to change. Especially in Europe, more and more people live alone, pushing people to search for new freedom. Solo tourism activities are included in the travel preferences of people who live alone or live in a crowded family and want to travel alone, who want to move freely in their travels. Camp tourism, which is carried out by those who want to be alone with nature, preferred by solo travel, responds to the understanding of socially distant vocation in recent years, especially due to the pandemic in 2020. The last trend of 2020 has been accepted as the tourism activity. As a result, people's desire to stay alone with themselves in nature, the desire to go on an internal journey, mental renewal, camp tourism, spiritual tourism, wellness tourism, yoga tourism and solo tourism, which are among the types of tourism that give the opportunity to feel better, are tourism activities with increasing demand in recent years. It would be beneficial for travel agencies to follow the tourist behavior and travel preferences of this segment and to act according to the current demands in order to respond to the waits of this generation.

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