The cultural sector in Polish economy in the regional approach

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Abstract

Motivation: In recent years, the impact of cultural factors on the economic development has been analysed. This research concerns the impact of culture on the labour market, the growth of innovation and creativity, participation in creating added value of GDP, stimulating exports, although the cultural sector also affects the development of tourism, entertainment and improvement in the quality of life of residents. Currently, the cultural sector is treated as a long-term economic investment affecting the development of the country.

Aim: The goal of the article is to evaluate the functioning of the cultural sector in Poland. This assessment has been made on a regional basis.

Results: To achieve the purpose, data of the GUS (Central Statistical Office in Poland) were analysed. The data concerned expenses allocated to culture and national heritage — they included individual types of cultural institutions and number of cultural sector entities in 2018–2021. The results of the analysis of the cultural sector have been presented in tables and diagrams. Using an agglomeration method, the Polish provinces were grouped according to values of the analysed categories of expenses allocated to culture and national heritage in the provinces in year 2021. It was noticed that the development of the cultural sector
sector in Poland is uneven, concentrated in the country’s capital, which is typical for less developed countries. Therefore, main barriers to the development of the cultural sector in Poland were identified. The most important obstacles were: underfunding, lack of systemic solutions to support the demand for cultural goods, unfavourable legal and financial conditions for creators of culture, lack of support for cooperation between public and private cultural sector, dependence of the development of the cultural sector on politics, as well as lack of social acceptance of the cultural policy. Culture is also negatively affected by the processes of globalization, commercialization and recently the Covid 19 pandemic.

Keywords: cultural sector; economic development; economic growth; cultural institutions
JEL: A14; E02; E71; H41; O11; Z10

1. Introduction

Nowadays, attempts are made to do comprehensive research on conditions of the economic growth going beyond the basic production factors, such as labour, land or capital. Among the significant conditions observed currently are cultural factors, which have been analysed in this article. They have drawn more attention recently, as knowledge-based economy has been developing under the influence of rapid technological progress and an ever increasing differentiation of consumer needs, stimulating greater appreciation of such values as innovation, creativity and human abilities (Kosińska, 2020, p. 25). Culture is a learnt, shared and interrelated set of symbols and patterns of behaviour, which assists a given group in dealing with the challenges they face (Ajekwe, 2017, p. 1). In economic sciences, the sector of culture is often analysed by considering its role in stimulating economy. This sector is defined in two ways: more broadly, as a set of all possible objects of culture, i.e. institutions of culture, arts schools, non-government organisations, private entrepreneurs, etc., and in a narrower approach, as a set of objects representing the so-called cultural industries (Kaczmarek, 2019, p. 79), which are sometimes referred to as creative industries (Stachowiak, 2015, pp. 11–12). Recently, some political circles have also adopted the term “cultural economy” (Pratt, 2014, p. 3). The growing interest of economists in this sphere has encouraged the authors of this article to consider the role of culture and sector of culture in economic development, to evaluate the role of the cultural sector in the Polish economy according to the regional view, and to identify barriers to its development in Poland.

2. Literature review

The role of the cultural sector in economy relates to its effect on the labour market, the growth in innovation and creativity, and on the development of knowledge-based economy. Culture is also analysed in the context of its influence on the development of tourism and entertainment, or the improvement of the quality of life by satisfying higher-order needs of the population. The cultural sector not only makes a considerable contribution to the GDP added value,
export and job creation, but also, and this is worth emphasising, is characterised by a stable growth, more stable than observed in other areas of economy — it is less vulnerable to economic fluctuations than other branches (Culture & Creativity, 2017, p. 4). It has been proven that the cultural sector continues to develop even during the time of a crisis, stimulating the dissemination of innovation and creativity in other sectors, especially in tourism and information technologies (Boccella & Solerno, 2016, p. 292). However, only part of the cultural sector is composed of enterprises which — apart from creating culture — generate profit. Many other entities in this sector or public institutions, non-profit organisation, etc., are significant in the development of economy as they offer jobs, provide cultural products, develop and educate the society, create innovations, and constitute a support system for the development of entrepreneurship. For these reasons, culture has become a new area for profitable investment and job creation (Dudzik & Ilczuk, 2013, p. 10), and, according to Hausner (2015, p. 76), culture is now turning into a basic resource, “a new economy”, and a new drive of development. Culture is seen as “a long-term economic investment, influencing the country’s development” (Wąsowska-Pawlik, 2013, p. 120). It generates considerable economic wealth and acting as catalyst for innovation and progress in other sectors (Kregzdaite et al., 2020, p. 618). There is another aspect of the impact of culture on a country’s growth and development, where culture is understood as a system of values in a given society rather than an economic sector, and as such it can favour the formation of entrepreneurial attitudes. Culture can affect the economic efficiency, promoting group-shared values which shape the ways in which members of that group undertake entrepreneurial activities (Throsby, 2010). Motivation, active stance, hard work, curiosity — they are the cultural values that can promote economic development. In countries where these values are less prominent, the economic activity is observed to be lower (Kuada 2020, p. 4). The literature even distinguishes between progress-prone and progress-resistant cultures. The former are characterised by high emphasis on work/achievement, moderate level of frugality, moderate risk propensity, acceptance of competition and emphasis on innovation as well as advancement based on merit. Progress-resistant cultures do the opposite (Harrison, 2006). Our understanding of the way in which a society acts and what values it appreciates is of key importance for the state’s policy, which can support the development of desirable cultural values (Pantelis, 2021, p. 14). The relationship between the development of culture and the development of entrepreneurship has already been emphasized in the literature several times (Achim et al., 2021; Hayton et al., 2002; Lumpkin & Brigham, 2011; Zhao et al., 2012).

What is worth emphasising is that culture cannot be separated from other conditions underlying the economic development, and therefore the potential of culture to stimulate the economic development cannot be assessed precisely. Likewise, it not recommended to study culture in a short-term approach. Another problem noticed in economic sciences is the following dilemma: does cul-
ture determine the economic development, or vice versa, does the economic development stimulate the development of the cultural sector? It is in the countries with a higher level of development that higher-order expectations emerge in the consumer hierarchy of needs, and these are the ones that the cultural sector satisfies (Włach, 2018, p. 71). Research shows that culture is appreciated more in countries with high revenues, able to ensure greater social support to economic activity, than in countries with low revenues (Achim et al., 2021). Meanwhile, greater cultural diversity stimulates entrepreneurship and supplants ineffective economic enterprises by more productive ones, favourable to the economic development (Audretsch et al., 2019, p. 2). A culture that supports entrepreneurship produces more entrepreneurial people, and thereby generates higher entrepreneurial activity (Radziszewska, 2014, p. 46). Moreover, the source of funding for culture is invariably economy, which operates in the framework of economic conditions (Hausner et al., 2013, p. 14). Consequently, the economic sciences do not provide one theory with a broad scope of applications, indicating the cause-and-effect relationships between culture and economy (Kochanowicz, 2012, p. 17). It seems that the mentioned relationships should be viewed as mutually interactive.

Currently, entities in the cultural sector operate in three sectors:
- public — most often organised on the municipal level, less often by communes and provinces, and least often — by the state administration (Przaztek, 2016);
- private;
- non-government organisations.

Development of the public-private partnership between public culture and business is observed (NCK, 2020). Other forms of inter-sectorial cooperation in the sphere of culture comprise sponsorship and patronage. Although the recent years have witnessed the process of privatisation of the cultural sector, in Poland the state still plays an important role in shaping culture — public funds remain fundamental to the implementation of the state’s cultural policy (Potocki, 2017, p. 174). The state pursues the cultural policy, shaping and influencing the directions in the development of the cultural sector in the country, acknowledging that the cultural sector is a priority in the state’s development strategies, and pointing to the need to measure economic consequences of the development of this sector (IADB, 2014, p. 6). The goals of the cultural policy were identified back in 1998, during the conference of the World Commission on Culture and Development, when it was decided that (Throsby, 2010, pp. 128–129):
- cultural policy should be one of the key elements in a strategy of development;
- creativity and participation in cultural life should be promoted;
- it is recommended to support cultural industries and cultural heritage of all countries;
- it is recommended to promote cultural and linguistic diversity;
more financial and human resources should be allocated to the development of culture.

The aim of the cultural policy in Poland is to develop and to sustain the continuity of Polish culture. To this end, the state supports cultural education, preservation of cultural heritage, artistic creativity and innovativeness, using such instruments as: subsidies, investment incentives, tax reliefs, special regulations, education and training sessions (Throsby, 2010, p. 124). The role of a cultural policy is to support the development of the cultural sector so that it can have the greatest possible impact on the country’s economy.

3. Methods

The goal of the article is to evaluate functioning of the cultural sector in Poland in the regional approach. For this purpose, the share of funds allocated to culture and national heritage in the Polish provinces relative to total expenditure was analysed, in addition to the rate of change in these expenses, and the rate of change in the number of entities in the cultural sector in particular provinces.

In this study, in order to distinguish homogenous groups of provinces with respect to the given categories of expenses on culture and national heritage, an agglomeration method was employed. The object of the analysis consisted of the Polish provinces regarding the values of the following diagnostic characteristics in year 2021:

– expenses on libraries (in PLN);
– expenses on culture centres, community centres and clubs (in PLN);
– expenses on theatres (in PLN);
– expenses on philharmonic halls, orchestras, choirs and music bands (in PLN).

Agglomeration methods, which belong to hierarchical cluster analysis methods, enable the user to divide a set of objects into homogenous groups in such a way that entities which belong to the same cluster are as closely similar to one another as possible. Results of the clustering of objects can be visualised as a dendrogram (a tree of connections). The Ward’s method was used in this study to collect objects; in this method, analysis of variance is employed to estimate distances between clusters (Stanisz, 2007). Calculations involved in the application of the chosen agglomeration method were supported by the Statistica PL software programme.

The provinces were grouped into 4 categories according to two variables — number of the cultural sector entities and the rate of change in this category. Also, particular categories of expenditure on culture and national heritage in the Polish provinces were analysed. The study was based on data from the Statistics Poland (2022), from years 2018–2021.
4. Results

Relative to the data for whole Poland, the highest share of expenditure on culture and national heritage occurred in the małopolskie, mazowieckie and śląskie provinces (Table 1). The unquestionable leader in this regard is the mazowieckie province, where the expenditure on culture and national heritage oscillates around 17% of the total Polish expenditure. In three cases, however, such expenditure did not exceed 3% in any of the analysed years, and this happened in the lubuskie, opolskie and świętokrzyskie provinces.

In comparison with the previous year, in 2021 there was a decline in the expenditure on culture and national heritage in total (Table 2). The highest decrease in this case occurred in the lubelskie and lubuskie provinces (less by 18.07% and 15.22%, respectively), while the highest increase of 24.57% was noted in the opolskie province.

In comparison with year 2018, a decrease in the total expenditure on culture and national heritage can be noted only in the dolnośląskie province, while the highest increase in 2021, relative to the base year, occurred in the opolskie and zachodniopomorskie provinces, by 54.1% and 67.7%, respectively. Year 2020 was quite specific for the cultural life as some of the cultural institutions were closed due to the pandemic. Despite this, it was only in four provinces that the expenditure on culture and national heritage decreased, but in the following year, there were six provinces where less money was allocated to this area. The reason was that some public funds in that year were re-allocated to other purposes, deemed as more important at that time.

Next, the individual categories of spending on culture and national heritage were analysed (Charts 1–5). Expenditure on libraries in Poland corresponds to an average 10% of all expenditure on culture and national heritage in all Polish provinces. The highest share of expenditure on libraries during the analysed years could be noted in the lubuskie, opolskie and podlaskie provinces. In the lubuskie province, for example, it made up 20% of the total expenditure on culture. The dolnośląskie, pomorskie and wielkopolskie provinces spent least of the total expenditure on libraries. As for the funds allocated to houses and centres of culture, community centres and clubs in the total expenditure on culture, they made up over 1% in the mazowieckie province in all the analysed years. These expenses constituted the highest share of the total budget allocated to culture in the warmińsko-mazurskie province in 2021, when they reached 28.18%. On average for Poland, the funds allocated to houses and centres of culture, community centres and clubs equal 7% of all expenditure to culture and national heritage. Expenses on theatres, in turn, reach 30% of all expenses on culture and national heritage in all Polish provinces. The highest share of these expenses in the total budget for culture was observed in the pomorskie, łódzkie and dolnośląskie provinces. In contrast, the podlaskie and podkarpackie provinces allocated the least of their total budget for culture to theatres, just 10%. With respect to expenditure on philharmonic halls, orchestras, choirs and music bands,
the funds they received in 2018 made up on average 10% of the total expenditure on culture and national heritage in all Polish provinces, and tended to decrease in the subsequent years. The highest share of the total budget for culture was achieved in the podlaskie province, where it exceeded 30% of the total expenses on culture and national heritage in this province in 2019. A high albeit decreasing share of these expenses in the total budget for culture was also recorded in the dolnośląskie and opolskie provinces. The least was spent on these cultural institutions in the zachodniopomorskie and mazowieckie provinces. Other cultural institutions were allocated the highest share of funds in the śląskie province, while the highest increase in expenses on other cultural institutions occurred in the zachodniopomorskie province.

In all the analysed years, relative to the previous year and to the base one, there was an increase in the number of the cultural sector entities (Table 3). In 2021, compared to the base year, an increase in the number of the cultural sector entities was no less than 10.00% in any of the provinces, while in the mazowieckie province, for example, the number of such institutions rose by over 20%. Compared to the previous year, the highest increase in the number of cultural institutions was observed in the mazowieckie province, while the lowest one in 2021, relative to the base year, was recorded in the lubelskie province (more by 11.12%).

Using the agglomeration method, the Polish provinces were classified according to the analysed categories of expenditure on culture and national heritage in 2021.

The coefficients of variation of the analysed characteristics exceed the value of 50%. It can be assumed that the values of expenditure in the analysed categories significantly differentiate the provinces. Values of the Pearson’s linear correlation determined between the variables do not exceed 0.31. This justifies the assertion that there is no collinearity between the analysed variables.

The classification results, visualised in a dendrogram (Chart 6), led to the determination of five clusters of provinces:

- cluster 1: lubelskie, lubuskie, opolskie, podlaskie, podkarpackie, świętokrzyskie, warmińsko-mazurskie;
- cluster 2: małopolskie;
- cluster 3: mazowieckie, zachodniopomorskie;
- cluster 4: kujawsko-pomorskie, śląskie;
- cluster 5: dolnośląskie, łódzkie, pomorskie, wielkopolskie.

The most numerous cluster number 1 comprised the provinces where the expenditure on libraries, philharmonic halls, orchestras and bands, theatres as well as culture centres, community centres and clubs in 2021 was the lowest. The total values in each of these provinces allocated to the mentioned entities were lower than Poland’s average value.

In małopolskie province, which belongs to cluster 2, high values of the all the expenses in the distinguished categories were high. Expenses on culture
centres, community centres and clubs were nearly five-fold higher than the values of the expenses in Poland.

Provinces mazowieckie and zachodniopomorskie, which fell into cluster 3, were characterised by the lowest expenses on philharmonic halls but high expenses on theatres in year 2021. Among the provinces contained in cluster 5, there were high expenses on theatres as well as philharmonic halls, orchestras, choirs and bands.

Next, the provinces were grouped according to the number of the cultural sector entities in 2021, and the rate of change in this category (2021/2018), and the results are illustrated in Chart 7. In terms of the number of the cultural sector entities, the strongest position in Poland is held by the dolnośląskie, wielkopolskie, małopolskie and mazowieckie provinces (compare: in the research contributed in 2005–2017 in the list of regions, the highest places were achieved by the lubelskie, zachodniopomorskie and dolnośląskie provinces). The weakest result was achieved by the świętokrzyskie province. It was in these provinces that the highest number of the cultural sector entities was recorded in 2021, in addition to a positive rate of change in this parameter. It can be assumed that this sector of economy is developing in all these provinces, and can be expected to continue growing in the future. The śląskie province presents a slightly different case. While it has a high number of the cultural sector entities, it seems that this sector has already been saturated and the number of cultural institutions grows slowly relative to year 2018. On the other hand, the kujawsko-pomorskie and łódzkie provinces seem promising for the future development of the creative sector. While the number of the cultural sector entities in these provinces was not large, the rate of its increase was high. It can therefore be expected that the mentioned parameter will rise in the future. In the other provinces, the number of cultural institutions is lower than Poland’s average and the rate of its increase is low, too. This is true about as many as 9 out of the 16 Polish provinces. Thus, it is justified to say that the cultural sector in Poland is rather poorly developed. Furthermore, the capital province (mazowieckie, with Poland’s capital city Warsaw) prevails in the development of this sector, which is typical of the Central and Eastern European countries (Wojnar, 2016). This development is attributed to the presence of a large city, in this case Warsaw. Warsaw is home to most of the nationwide television and radio stations, Internet portals and editorial offices of newspapers and magazines. It is also where many of the most important Polish research centres and universities are located. Warsaw also houses numerous theatres, museums and historic buildings. Finally, its population has the highest percentage of university graduates, enjoying a high financial status. All these factors add to the creativity potential of Warsaw, attracting more and more human capital, which can be located in the cultural sector. Cultural goods are the goods that satisfy very well higher-order needs, and therefore are treated as luxury goods. The demand for cultural goods grows in regions with a higher level of economic development, but is weaker in regions with high unemployment or lower average remunerations. In an environ-
ment that favours the development of culture, all technological, entrepreneurial and artistic initiatives stimulate one another, attracting more creative individuals and supporting the dynamic transfer of knowledge and ideas. Thus, a region that is culturally well developed attracts the cultural sector entities from other regions. The dominance of Poland’s capital city in the development of country’s cultural sector is also a result of the atmosphere of tolerance in Warsaw, that is the openness to new ideas and low barriers to entering this sector of economy. Based on the review of the subject literature, the authors made an attempt to identify the main barriers to the development of the cultural sector (Kaczmarek 2019; Klimczuk, 2014; OECD, 2021; Throsby, 2010; Wojnar, 2016). In Poland, they proved to include: insufficient financing, lack of system-based solutions supporting the demand for cultural goods, and legal and financial conditions being unfavourable to creators of cultural goods (high taxes, unstable employment). There is no systemic support to cooperation between the public and private sectors in the scope of cultural development (there are no incentives for private companies to support culture). Another significant barrier to the development of the cultural sector is its dependence on politics — as a result, there is a lack of continuity in the cultural policy being implemented, as its goals change with the change of power. Another threat to the development of the cultural sector is posed by globalisation processes, which entail certain unification of consumers’ needs across the world, also in terms of cultural goods, hence the diversity of nations or regions may suffer. Commercialisation is another source of threat to the development of culture, as it increasingly often affects this sector of economy. In consequence, various entities and organisations undertake the task of delivering such cultural goods that ensure the highest profit rather than the ones which are most valuable. Another obstacle arises from the fact that the implemented cultural policy is not always accepted by the society, and no economic policy will be fully effective unless it is accepted by the society (Kafka, 2020). Thus, the insight of what ought to be a good economic policy will not directly lead to its realisation (Goldschmidt et al., 2006, p. 6). It is also worth underlining that the Covid-19 pandemic took its toll on the cultural sector (closed museums, cinemas, theatres, cancelled concerts, etc.). It is estimated that the total turnover of the cultural sector in the European Union and the UK fell down by over 30% due to the pandemic (OECD, 2021, p. 9). The impact of the crisis on organizations and various spheres of the economy is a widely discussed issue in the face of Covid 19 (Melina et al., 2021, pp. 1–6). The authors look at these changes and review state responses as well as new initiatives from the cultural sector itself (Dumcke, 2021). Therefore further research on the condition and directions of culture development seems all the more important (Melina et al., 2021).
5. Conclusions

The cultural sector in Poland is poorly developed. It is characterised by an uneven development, concentrated in the country’s capital city, which is manifested by the share of expenditure on culture and national heritage in total expenditure in Poland being the highest in the mazowieckie province among all Polish provinces throughout the whole analysed period. Such expenditure was also higher in the śląskie and małopolskie provinces, while being the lowest in the świętokrzyskie and lubuskie provinces, so that the share in these provinces did not exceed 3% of all expenses to culture and national heritage in Poland. The highest rate of increase in such expenditure in 2021 relative to the base year (2018) was observed in the zachodniopomorskie province, in contrast to the dolnośląskie province, where a decrease in these expenses was noted. The highest percentage of the expenses on culture and national heritage in Poland is allocated to theatres (nearly 1/3 of the total expenses allocated to this sphere) — and the highest share of a province’s budget for the sphere of culture that was allocated to theatres was recorded in the łódzkie and pomorskie provinces. The highest percentage of the budget allocated to libraries over the analysed period was observed in the lubuskie and zachodniopomorskie provinces, while the warmińsko-mazurskie and świętokrzyskie provinces allocated the highest funds to culture houses and centres, community centres and clubs, the opolskie and podlaskie provinces dedicated the highest share of the budget to philharmonic halls, orchestras, choirs and music bands, and finally the other cultural institutions received the highest funding in the śląskie province.

The highest number of the cultural sector entities occurred in the provinces dolnośląskie, wielkopolskie, małopolskie, mazowieckie and śląskie. The highest increase in the number of the cultural sector entities in 2021, relative to year 2018, was observed in the provinces dolnośląskie, wielkopolskie, małopolskie, mazowieckie, kujawsko-pomorskie and łódzkie.

The agglomeration method enabled us to distinguish a group of provinces (cluster 1), situated in the eastern part of Poland, where the cultural sector is the least developed. In the provinces which belong to this cluster, the values of expenses within the analysed categories were the lowest. In provinces lying in the western and central parts of Poland (clusters 3 and 5), expenses on theatres in year 2021 were the highest in all Poland. It can be suspected that there are greater barriers to the development of the culture sector in cluster 1 provinces than in the other Polish provinces. This issue, however, requires more in-depth research. The authors could only suggest that the state policy aiming to support the cultural sector should be regionally adjusted. Redistribution of state revenues should take into account some shift towards the regions that are culturally less developed. The principal barriers to the development of this sector are of financial, legal and political nature. Also, the lack of support to public-private initiatives has been documented. The cultural sector is exposed to globalisation processes, which brings about the gradual unification of cultural
needs across the world, and commercialisation processes, due to which valuable cultural goods may not be delivered to the general public unless their delivery is profitable to their creators. These barriers seem to be difficult to overcome in a short term. However, a long-term, stable cultural policy of the state should be able to elaborate ways to surpass such obstacles with a view to supporting the economic development of the country. In the future, it will be important to provide such support in a purposefully targeted manner (e.g. including regional differentiation, as suggested by the authors of this study). It is equally important to conduct studies in order to determine factors that shape the spatial development of the cultural sector in Poland, as this would improve the efficiency of a regionally differentiated cultural policy. The main barrier to the implementation of the above guidelines is the underestimated role of the cultural sector in economy. This also explains why further research into the importance of this sector for economic growth and development is expedient.

References


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Note: the results of this study were presented at 12th International Conference on Applied Economics Contemporary Issues in Economy (June 29–30, 2023, Poland).
Appendix

Table 1.
Share of expenditure on culture and national heritage in provinces in total expenditure in Poland (%)

<table>
<thead>
<tr>
<th>Specification</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Dolnośląskie</td>
<td>6.52</td>
<td>5.57</td>
<td>4.79</td>
<td>5.02</td>
</tr>
<tr>
<td>Kujawsko-pomorskie</td>
<td>7.28</td>
<td>7.24</td>
<td>6.69</td>
<td>7.08</td>
</tr>
<tr>
<td>Lubelskie</td>
<td>4.00</td>
<td>3.86</td>
<td>4.40</td>
<td>3.52</td>
</tr>
<tr>
<td>Lubuskie</td>
<td>2.01</td>
<td>2.41</td>
<td>2.51</td>
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</tr>
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<td>Łódzkie</td>
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<td>5.89</td>
<td>5.79</td>
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<td>10.44</td>
<td>10.27</td>
<td>9.36</td>
<td>9.91</td>
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<tr>
<td>Mazowieckie</td>
<td>17.54</td>
<td>17.55</td>
<td>16.71</td>
<td>17.03</td>
</tr>
<tr>
<td>Opolskie</td>
<td>2.03</td>
<td>1.90</td>
<td>2.11</td>
<td>2.56</td>
</tr>
<tr>
<td>Podkarpackie</td>
<td>4.38</td>
<td>4.49</td>
<td>4.54</td>
<td>4.31</td>
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<td>Podlaskie</td>
<td>3.97</td>
<td>4.50</td>
<td>4.09</td>
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<tr>
<td>Pomorskie</td>
<td>6.97</td>
<td>7.32</td>
<td>7.79</td>
<td>8.08</td>
</tr>
<tr>
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<td>Warmińsko-mazurskie</td>
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<td>Zachodniopomorskie</td>
<td>4.21</td>
<td>4.09</td>
<td>5.14</td>
<td>5.77</td>
</tr>
</tbody>
</table>

Source: Own preparation based on Statistics Poland (2022).

Table 2.
The rate of change in total expenditure on culture and national heritage (%)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Poland</td>
<td>111.50</td>
<td>107.16</td>
<td>102.55</td>
<td>119.48</td>
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<td>99.07</td>
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Source: Own preparation based on Statistics Poland (2022).
Table 3.
The rate of change in the number of cultural sector entities (%)

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Source: Own preparation based on Statistics Poland (2022).

Chart 1.
Share of expenditure on libraries in total expenditure on culture and national heritage (%)

Notes:
1 — Poland; 2 — Dolnośląskie; 3 — Kujawsko-pomorskie; 4 — Lubelskie; 5 — Lubuskie; 6 — Łódzkie; 7 — Małopolskie; 8 — Mazowieckie; 9 — Opolskie; 10 — Podkarpackie; 11 — Podlaskie; 12 — Pomorskie; 13 — Śląskie; 14 — Świętokrzyskie; 15 — Warmińsko-mazurskie; 16 — Wielkopolskie; 17 — Zachodniopomorskie.

Source: Own preparation based on Statistics Poland (2022).
Chart 2.
Share of expenditure on theatres in total expenditure on culture and national heritage (%)

Notes:
Series names as in Chart 1.
Source: Own preparation based on Statistics Poland (2022).

Chart 3.
Share of expenditure on culture centers, community centers and clubs in total expenditure on culture and national heritage (%)

Notes:
Series names as in Chart 1.
Source: Own preparation based on Statistics Poland (2022).
Chart 4.
Share of expenditure on philharmonic halls, orchestras, choirs and music bands in total expenditure on culture and national heritage (%)

Notes:
Series names as in Chart 1.
Source: Own preparation based on Statistics Poland (2022).

Chart 5.
Share of expenditure on other cultural institutions in total expenditure on culture and national heritage (%)

Notes:
Series names as in Chart 1.
Source: Own preparation based on Statistics Poland (2022).
Chart 6.
Dendrogram of clustering provinces using the Ward’s method

Source: Own preparation based on Statistics Poland (2022).

Chart 7.
Growth/size matrix of the cultural sector

Source: Own preparation based on Statistics Poland (2022).