

Article

Multidimensional Facets of Entrepreneurial Resilience during the COVID-19 Crisis through the Lens of the Wealthiest Romanian Counties

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Abstract: Sustainable socio-economic development can be looked upon from multiple perspectives, but no longer without considering the roles of urban planning, smart cities and eco-innovative entrepreneurial initiatives. In the context of the COVID-19 crisis, ensuring sustainable socio-economic development is definitely challenging, but not impossible if adopting appropriate measures. This research aimed at analyzing the multidimensional facets of entrepreneurial resilience during times of crisis caused by the COVID-19 pandemic in Romania, while focusing on the effects experienced in the wealthiest areas, specific to urban agglomerations. The research method consisted of constructing a composite indicator comprising appropriate components for assessing the level of wealth and “happiness” of all the Romanian counties. Through the lens of this composite indicator, entrepreneurial resilience was approached in multiple manners according to its diverse forms. Research findings highlight that entrepreneurial resilience tends to be stronger qualitatively and quantitatively in less developed areas than in those that are well developed, mainly due to the lack of entrepreneurial initiatives. Despite being less entrepreneurially resilient, qualitatively, the wealthiest Romanian counties can economically reinvent themselves quicker.

Keywords: wealth; economics of wellbeing; entrepreneurial resilience; composite indicator; COVID-19 pandemic

1. Introduction

1.1. *The Roles of Happy and Healthy Cities in Relation with Entrepreneurship in the Economics of Wellbeing*

The city of the future is approached as being a green, social, active and healthy city [1]. Cities have always been the centers of resource harnessing and transformation. Moreover, cities have acted as vectors of information intensity and knowledge transfer [2]. In today’s knowledge society [3–5], information and innovation could be considered the most relevant examples of golden keys for influencing the global economy [6]. Knowledge-intensive and innovation-oriented areas, especially cities with a high density, are considered of major importance: agents of replacing old business patterns with modern methods of establishing and managing businesses [7].

More than half of the world’s population is living in cities [4]. Approximately 70% of the world’s population is estimated to live in urban areas by 2050 [8]. This is important because proximity and population density are important factors that facilitate information and knowledge transfer [9,10], a decisive process in the context of innovation [11].

Entrepreneurship represents a vital part for the future development of any healthy city and entrepreneurialism merits renewed attention through the lens of building healthy cities [12]. Entrepreneurial manifestation can be perceived as a representation of emerging regional wealth.

Entrepreneurship has always been advocated as one of the major solutions for ameliorating unemployment [13]. Regions fostering their entrepreneurial capital can be considered winners from the standpoint of innovation, which will later deliver economic progress [10]. Entrepreneurship should be looked upon as one of the center points of generating regional divergences, rather than regional convergences, because entrepreneurs generate economic and urban agglomerations around particular activity fields and others become slowly less attractive, both economically and socially. Although, economic achievements are earned with much more entrepreneurial effort in urban areas than in rural areas [14], mainly due to the high levels of population density and economic competition in urban areas. Entrepreneurship and regional development cannot exist one without the other. Urban agglomerations and regions are shaped by the entrepreneurial culture, which is represented by the entrepreneurs and their innovative actions undertaken with the scope of pursuing business opportunities, yet with well-calculated risks, even such as the ones implied by pandemic outbreaks [15].

Early studies that tied the concept of healthy cities to that of entrepreneurship [16,17] highlighted that entrepreneurship is one of the keys to the success of developing healthy cities. Social entrepreneurs have the roles of advocating and empowering measures and actions designed to ensure an equitable development for citizens, with a focus on providing fair levels of health and wellbeing to all the members of the society [18]. Policy changes are dependent on and should consider the presence and actions of entrepreneurs. Regions with a well-established entrepreneurial culture tend to be forerunners when referring to economic progress, especially through innovation [19]. Regions represent the fundamental basis of economic and social life, a constantly changing entity; they can even be referred to as anchor points for multifaceted perspectives on the dynamics in the space-economy. Regional economics study the complexities of the modern space-economy. Regional changes can be looked upon as the result of entrepreneurial activities, in which innovation is a success key-driver [19].

Urban agglomerations represent vectors of future sustainability: human health and wellbeing. However, the social polarization in the urban areas result in the birth of residents' concentrations of suffering from high crime rates and a loss of feeling of safe [20]. Moreover, urban development strategies need to include measures meant to improve citizens' daily exposure to urban greenness [21] and to provide efficient solutions, given urban residents' growing leisure needs [22].

The topic of the permanently changing urban environment and the topics of wellbeing and health of the individual are connected and have been studied together, especially if considering the exponential global urbanization process [23]. Even though urban agglomerations may seem to drive their strength from internal symbiosis forces, their outreach is also outward-oriented due to globalization. This causes modern regional development policies to reconsider the global socio-economic system and to allocate more attention to urban agglomerations [24], especially the perspective of sustainability [25,26].

Wealthy areas attract even more wealth in time. Large cities act as magnets for foreign migrant entrepreneurs, who seek new opportunities in areas that have a history in providing successful enterprises, both nationally and internationally [27]. Entrepreneurship in large and wealthy cities no longer implies running innovative and competitive business models only, but it also imposes the sustainability factor—which can be fostered even by applying the principles of the circular economy [28] to the existing business models in relation with needs of the urban.

Wellbeing and happiness should not represent a privilege of affluent areas, as it is considered that they can be fostered by implementing effective development strategies [29]. Urban areas need to improve and maximize their urban life quality in order to keep pace with the global urban patterns [30]. They stimulate entrepreneurs to reinvent themselves and respond to emerging urban issues.

Considering entrepreneurship's contribution to the consolidation of wealthy urban agglomerations, the main objective undertaken in this research paper was to study the effects of the COVID-19 pandemic on the manifestation of entrepreneurial spirit in Romania, while correlating the results with the geography of wealth. More specifically, we aimed at analyzing entrepreneurial resilience with respect to a self-designed composite indicator comprising multiple components relevant for quantifying the level of wealth, well-being and happiness associated to each of the Romanian counties. Moreover,

another objective undertaken in this research was to highlight the differences between the pandemic's implications on the wealthiest areas of the country, often urban agglomerations, viewed as national engines of entrepreneurial initiatives, and on other less developed areas yet still considered vectors of strong entrepreneurial resilience [31].

1.2. Entrepreneurial Resilience Through the Lens of the Economics of Wellbeing

Regarding resilience, it is a concept that refers to the capacity of a system to respond to changes or disturbances without changing its basic state [32]. The resilience capacity also refers to building an infrastructure meant to assure mitigation in the face of socio-economic changes and disturbances, and meaningful and thoughtful planning and policy decision-making. The concept of resilience is relevant in the field of entrepreneurship for many reasons. For example, resilience is often a term used synonymously with persistence or preparedness to explain why some entrepreneurs perform better in business than other non-resilient entrepreneurs do [33]. The performance can be analyzed from many standpoints: both quantitatively and qualitatively [34], at the micro and macro levels [35]. Even though the COVID-19 global crisis has been causing significant havoc around the world, especially since it was declared a pandemic on 11 March 2020 [36], the effects of this outbreak present some important opportunities for entrepreneurs to be innovative and to reinvent their businesses [37]. This pandemic triggered many lockdowns in economies worldwide [38] and created a unique situation that has no documented equivalent in the entrepreneurship scientific literature [39]. The absence of vaccines [40] or treatments for the novel virus has imposed lockdown and social distancing restrictions, the latter acting as government instruments meant to reduce the transmission of the virus across the population.

During an economic and social crisis climate, such as the one generated by COVID-19 pandemic, entrepreneurial intention decreases, given the state of uncertainty, which has a negative impact on the development of entrepreneurial intentions [41]. In this context, some entrepreneurs will respond and elaborate more resilient economic forms of business models. Unfortunately, others had to close their businesses temporarily due to governmental restrictions or had to impose precautions, running their activities in a limited extent. It is worth highlighting that certain entrepreneurs were actually able to see the opportunities rather than the disadvantages caused by the COVID-19 pandemic, especially if we consider business models that involve the production and marketing of sanitary products (and not only). However, such entrepreneurs that harnessed profitable business models based on the scare factor of humans in the face of the pandemic represent an extremely small part of the Romanian entrepreneurial community, which cannot be quantified yet due to data unavailability. While this is an interesting approach on entrepreneurial resilience worth researching into the core of the socio-economic phenomena, this paper was not designed on a particular type of entrepreneurs, but it has a quantitative research method at its foundation and brings a larger perspective at the level of all the Romanian entrepreneurs, through the lens of wealthiest Romanian counties.

In the past, Romanian entrepreneurship was drastically affected by crises, such as the global financial crisis of 2007–2008 [42], and studies highlighted the importance of empowering entrepreneurial spirit as one of the pillars of recovery [43] as an approach that can facilitate regional resilience in a crisis situation [44]. This may seem like a contradiction: why would the generators of recovery (i.e., entrepreneurs) need to be supported via special measures during difficult times, since they need to provide evidence of resilience based on their own strength? They should be the ones to identify opportunities and turn them into sustainable business models profitable not only for them, but also for the society. In such difficult situations, on one hand, necessity-driven entrepreneurs feel pushed to launch new businesses—mainly because they have little success in findings jobs and need a source of income—and, on the other hand, opportunity-driven entrepreneurs decide to act due to being highly motivated and guided by market-oriented signals of products/services desirability [45]. In the context of the COVID-19 global crisis, business models involving the production and marketing of sanitary products can represent an example of harnessing opportunities. However, is this a sustainable form of entrepreneurial resilience?

The main difference between necessity-driven entrepreneurs and opportunity-driven entrepreneurs is that the latter are often found in urban areas and are characterized by higher levels of education and an increased agility in identifying and transposing short-term business opportunities into practice [46]. This is the opposite of necessity-driven entrepreneurs, who are most likely located in lower income regions, with less access to resources and low levels of education [47]. In this context, opportunity-driven entrepreneurs are more likely to be found in the most wealthy and healthy cities of Romania.

Entrepreneurial resilience can be looked upon from multiple angles: (i) entrepreneurs bouncing back to the old implemented business model after the first waves of the shock, (ii) entrepreneurs adopting new sustainable business behaviors in order to shape prior economic structure into a consolidated one, more resilient to shocks, and (iii) entrepreneurs accepting the need of imminent change and conducting radical changes in their business models with completely new and innovative socioeconomic structure [48].

Studies demonstrated that there was a trend toward digital entrepreneurship that has been steadily increasing in the years preceding the COVID-19 pandemic [49]. The new digital technologies have reshaped and transformed the nature of entrepreneurial processes and outcomes, including the methods of dealing with such uncertainty, specific to a climate as the one generated by the COVID-19 pandemic. In these conditions, one can notice the premises of tackling digitalization even more seriously [50], especially considering how it facilitates the enriching of entrepreneurship initiatives but also strengthens the digital transformation processes of existing entrepreneurs [51], including in the case of the Romanian counties—and even more in those that are the wealthiest [52]. Regarding the scientific interest concerning the entrepreneurship–resilience–cities relationship, it has intensified since 2017. In October 2020, 36 scientific publications were identified in the Web of Science Core Collection when performing the following query: “TOPIC: (entrepreneurship) AND TOPIC: (resilience) AND TOPIC: (city)”. Most of the research concerning the relationship between entrepreneurial resilience and the role of cities was published in the 2017–2020 period (69.44%) and the first article on this topic was published in 2012: “Trans-generational renewal as managerial succession: The Behn Meyer story (1840–2000).” Among others, the article aimed at highlighting trans-generational entrepreneurial resilience concerning a company founded in Singapore, a city-state with high levels of well-being [53].

This study’s contributions offer a larger perspective on how Romanian clusters of well-being are more susceptible to becoming limited, up to a certain degree, in terms of engaging in the field of entrepreneurship when facing complex multifaceted crises such as the COVID-19 pandemic. Entrepreneurial resilience tends to be stronger qualitatively in less developed areas than in those that are well developed—an important result of this study, which draws the attention to a double-edged issue, demanding solutions:

- At the level of maintaining and encouraging the high engagement in entrepreneurial activities in the wealthiest and healthiest areas, the issue resides in elaborating the best policies in order to simultaneously ensure that the entrepreneurial activities remain constant or intensify while also building the necessary action plan meant to generate entrepreneurial resilience to shocks.
- At the level of maintaining the strengthened entrepreneurial resilience in areas currently converging to the level of the wealthiest ones, the issue resides in designing efficient policies meant to ensure the sustainable development of the emerging areas while still remaining entrepreneurially resilient, with the hope that entrepreneurial initiatives become intensified.

Regarding the significance of this research paper, it contains relevant findings on the relationship between entrepreneurial resilience and Romania’s wealthiest counties. The methodological framework designed in this study can be replicable in the case of any other country in order to assess the needs of the community of entrepreneurs from the perspective of their geographical position, whether the latter is specific to a “geographical area of wellbeing/happiness” or whether it is characterized by an undergoing process of transitioning towards being wealthy and healthy.

2. Materials and Methods

Data used in this research were taken from two sources. The indicators necessary for building the composite indicator that assesses the level of wellbeing and health in the case of the 42 Romanian counties were taken from the databases of the Romanian National Institute of Statistics (TEMPO Online). Data used in order to quantify the Romanian entrepreneurial resilience in the face of the COVID-19 pandemic were taken from the National Trade Register Office database. Both data sources were accessed in September 2020.

Table 1 contains relevant information regarding all the indicators used when constructing the composite indicator in order to assess the level of well-being and health in the case of the 42 Romanian counties. Additionally, the indicator names were assigned codes based on how they can be identified in the Romanian National Institute of Statistics database. Moreover, Table 1 includes information regarding what each indicator assesses (proxy).

Table 1. Indicators used when constructing the composite indicator in order to assess the level of wellbeing and health in the case of the 42 Romanian counties.

Item No.	Abbreviation	Indicator Codes Assigned by The Romanian National Institute of Statistics	Name of the Indicator	Proxy for: (What the Indicator Assesses)
1	I ₁	FOM106E	The average monthly nominal net earnings	Economic wealth from the perspective of the individual [54,55]
2	I ₂	SOM101F	The share of registered unemployed at the end of the month in the total labor resources	Reverse of wellbeing [55–57]
3	I ₃	SAN104A ÷ POP107D	The number of doctors (dentists included) reported to the permanent resident population	Healthy areas [58,59]
4	I ₄	SAN102B ÷ POP107D	The number of hospital beds reported to the permanent resident population	Healthy areas [58,59]
5	I ₅	POP209A	The infantile mortality rate	Reverse of healthy areas [60,61]
6	I ₆	TRN104F ÷ POP107D	The number of road traffic accidents with injuries reported to the permanent resident population	Unwealthy areas with developed transport infrastructure [60,62]
7	I ₇	(GOS102A + GOS103A) ÷ GOS103A	The area inside towns and municipalities plus the verdure areas reported to the verdure areas	Happy and healthy areas [63–66]
8	I ₈	GOS105B ÷ GOS104A	The share of the length of the modernized town streets in the total length of town streets	Wealthy areas [67,68]
9	I ₉	LOC103B ÷ POP107D	The living floor (space) reported to the permanent resident population	Happy and healthy areas [58,69]
10	I ₁₀	SCL101C ÷ POP107D	The number of education units reported to the permanent resident population	Wealthy (educational) areas [70,71]
11	I ₁₁	SCL104A ÷ POP107D	The number of classroom teachers reported to the permanent resident population	Wealthy (educational) areas [70,71]

Table 1. Cont.

Item No.	Abbreviation	Indicator Codes Assigned by The Romanian National Institute of Statistics	Name of the Indicator	Proxy for: (What the Indicator Assesses)
12	I ₁₂	SCL112B ÷ POP107D	The number of PCs in school reported to the permanent resident population	Wealthy (educational, digital) areas [70,72]
13	I ₁₃	ART106A ÷ POP107D	The number of the volumes in libraries reported to the permanent resident population	Happy areas with cultural infrastructure [73,74]
14	I ₁₄	ART114A ÷ POP107D	The number of places in entertainment institutions reported to the permanent resident population	Happy areas with cultural infrastructure [73,74]
15	I ₁₅	JUS105C ÷ POP107D	The number of sentenced persons in penitentiaries reported to the permanent resident population	Reverse of wellbeing [75,76]

Source: Authors' own conceptualization, based on literature review and on the availability of the indicators included in the database of the Romanian National Institute for Statistics, TEMPO Online [77].

The extracted, treated and processed data refers to the year 2018, because this is the year statistically compatible from the perspective of all the indicators mentioned in Table 1, considered relevant for constructing the composite indicator meant to assess the level of wellbeing and health.

Unfortunately, the data in Table 1 is only available at the level of all the 42 Romanian counties, and not cities, based on the TEMPO platform data structure, as of September 2020. This is one of the reasons this research is focused on counties and not on cities. However, in 2018, Romania's total resident population living in cities reached 56.39% of the total permanent resident population [77], which means that 43.61% of the total resident population lived outside towns.

The indicators used when constructing the composite indicator were initially analyzed while taking into consideration the permanent resident population of each of the 42 counties: the number of doctors (dentists included) was reported to the permanent resident population, as was the number of beds reported to the permanent resident population, the number of road traffic accidents with injuries, the living floor (space), the number of education units, the number of classroom teachers, the number of computers in school, the number of the volumes in libraries, the number of places in entertainment institutions and the number of sentenced persons in penitentiaries. It is important for this quantitative research to report each of the analyzed indicators to the permanent resident population in order to have normalized values in respect to the social dimensions of the counties. Calculating these ratios provides a better and objective perspective regarding each of the analyzed indicators when looking in the structure of the counties. Moreover, calculating these ratios is essential for further comparisons between counties and validates the statistical results.

Regarding the average monthly nominal net earnings, the infantile mortality rate and the share of registered unemployed at the end of the month in the total labor resources did not need to be reported to the permanent resident population because the first mentioned indicator is already calculated per capita, while the second and the third indicators already represent a ratio. The area inside towns and municipalities plus the verdure areas reported to the verdure areas and the share of the length of the modernized town streets in the total length of town streets are self-calculated indicators, based on the raw data taken from the TEMPO Online platform. Similarly, tackling the indicators in such a manner facilitates having an objective approach in the structure of the counties from the indicators' standpoints, as the ratios were calculated only referring to one county at a time. These ratios become useful later when comparing between them at the level of all 42 counties.

The Romanian National Institute for Statistics [77] defines the previously mentioned indicators:

- the average monthly nominal net earnings are calculated by subtracting tax, the social security contribution and the social health insurance (paid by the employees) from the gross nominal earnings;
- the share of registered unemployed at the end of the month in the total labor resources takes into consideration the registered unemployed persons who simultaneously fulfill the following conditions: aged 16 years or older, actively look for a job, her/his health and physical and psychical capacities render her/him able to work, has no job and no income, is available to start work immediately if there was a vacancy and she/he is registered at the National Agency for Employment. The share is calculated as a percentage between the total number of registered unemployed and the permanent resident population aged 18–62 years;
- the number of doctors refers to physicians, who examine, diagnose, treat and prevent diseases, infections, injuries and other human physical and mental impairments, applying the procedures of modern medicine. In this study, dentists were included as well;
- the number of beds from sanitary units represent inventory beds, legally authorized to operate;
- the infant mortality rate represents the ratio between the number of deaths under one year old in a year and 1000 live births (same year). It is expressed by the number of deaths under one year old per 1000 live-births;
- the number of road traffic accidents with injuries refer to any accident involving at least one road vehicle in motion on public or private road to which the public has right of access, resulting in at least one injured or killed person, excluding suicides and suicide attempts;
- the area inside towns and municipalities represents the built-up area comprised in the buildable perimeter of municipalities and towns, including the localities belonging to municipalities and towns, according to the systematization plan approved for that locality, excluding the area of villages that belong to the municipality (the town);
- the verdure areas in municipalities and towns represent the areas arranged as parks, public gardens or squares, forests, fields of sports grounds, graveyards and facilities within the buildable perimeter of localities, excluding plant nurseries, greenhouses, lakes, kitchen gardens and agricultural land;
- the length of modernized town streets represents the length of streets with shaped-stone (including coverings of cubic, parallelipedic stone or others), asphalt or concrete covering;
- the total length of town streets represents the length of streets within the locality that ensure circulation, whether or not they have road covering;
- the living floor (space) represents the sum of areas of habitable rooms, measured by interior dimensions;
- the number of education units includes daily care, kindergartens, primary and gymnasium schools, high-schools, school groups, vocational schools and tertiary institutions. They must be juridical entities, included in the National Nomenclature SIRUES;
- the number of classroom teachers sums up the individuals who work in the educational system and teach in the educational and training process, registered only once, only in the educational, according to the Employment Record Book;
- the number of computers in schools refers to the computers that have hardware, monitors and keyboards and that are used in the school's administration;
- the number of volumes in libraries sums up all the books, booklets, collections of newspapers and magazines that have at least five pages, other audio-visual materials, maps, graphs and artistic reproductions registered in the inventory of the library;
- the number of places in entertainment institutions refers to the seats available in institutions and companies for arts performing or concerts, and the auditorium capacity;
- the number of sentenced persons in penitentiaries includes the individuals definitively convicted in penitentiaries.

The constructed composite indicator summarizes complex, multi-dimensional realities regarding the level of wellbeing and health in the case of the 42 Romanian counties, making it possible to include more information within the existing size limit [78].

The logic behind the design of the composite indicator was the following: data were initially processed structurally (referring to the counties) by normalizing the values of the components (referring to each indicator mentioned in Table 1) with the value associated to each of the counties' permanent resident population (division). After that, the next step was to use these results in order to compare the counties between themselves (in terms of the composite indicator components), resorting to division again and obtaining shares from the sums. This was made possible by reporting, per county, the values each components at the sum of components, per component. I_2 , I_5 , I_6 and I_{15} were attributed negative signs, because they represent the opposite of health [79] and wellbeing [55,56,60–62,75,76]. Summing up the scores obtained per county and per component, the composite indicator resulted. The latter was normalized by reporting its values associated to each county to the sum. By doing that, the final normalized composite indicator per county was obtained, an indicator that assesses the level of wellbeing and health in the case of the 42 Romanian counties.

Regarding entrepreneurial resilience, the birth rate of new firms represents one way of approaching this concept: comparing the number of the newborn firms during a time of crisis to the number of the newborn firms under normal conditions [44]. This is considered one of the entrepreneurial resilience facets that quantifies the entrepreneurial resilience from a qualitative standpoint, because reporting the number of the newborn firms during a time of crisis to the number of the newborn firms under normal conditions involves a comparison in terms of resilience quality—it does not take the national volume and intensity of entrepreneurial activity into consideration (per Romania), but rather it focuses on a single county at a time and on its entrepreneurial resilience approached via reporting its activity to a previous value from the past.

The other facet of entrepreneurial resilience tackled in this research paper refers to the raw number that measures the difference between the newborn firms during the COVID-19 pandemic and the number of the newborn firms under normal conditions. This facet quantifies resilience from a standpoint that is more focused on the quantitative aspect, because it considers the volume and intensity of entrepreneurial activity nationally (per Romania), while being less focused on the quality of the entrepreneurship resilience.

The quantitative approach on entrepreneurial resilience can be looked upon as an analysis on the negative impact of the COVID-19 crisis on the Romanian entrepreneurial communities: how much has the pandemic negatively affected emerging entrepreneurs, in the sense of inhibiting their entrepreneurial spirit and causing them not to launch new businesses in the market? More specifically, how many new firms were lost during the pandemic if subtracting the number of the newborn firms during the pandemic from the number of the newborn firms corresponding to the same months of the year 2019, when there was no pandemic?

The qualitative approach can be looked upon as an analysis on the recovery of the Romanian entrepreneurial communities during the pandemic: how did entrepreneurs manage to overcome the situation caused by the pandemic, judging from the perspective of a previous period with no pandemic [80]? More specifically, if reporting the number of the newborn firms during the pandemic to the number of the newborn firms corresponding to a previous normal period, is this ratio smaller than 0.6 (for example, proxy for a poor recovery rate) or closer and bigger than 0.6 (proxy for a decent entrepreneurial recovery rate)?

The statistical data related to the number of the newborn firms were taken from the National Trade Register Office database and refers to the March–July period, 2019–2020.

3. Results

The scores per component used in the construction of the composite indicator were analyzed initially individually in Table 2, in order to study their impact on the final score of wealth and health associated to each Romanian county.

Table 2. Descriptive statistics of the normalized components used to construct the composite indicator meant to assess the level of wealth and health of the Romanian counties, year 2018.

	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	Observations
I ₁	0.024	0.023	0.036	0.021	0.003	2.151	8.256	42
I ₂	-0.024	-0.023	-0.004	-0.050	0.011	-0.834	3.340	42
I ₃	0.024	0.013	0.216	0.005	0.034	4.378	24.394	42
I ₄	0.024	0.017	0.166	0.006	0.025	4.486	25.567	42
I ₅	-0.024	-0.023	-0.010	-0.056	0.008	-1.381	7.078	42
I ₆	-0.024	-0.023	-0.013	-0.033	0.004	-0.243	3.184	42
I ₇	0.024	0.021	0.072	0.006	0.012	1.595	7.324	42
I ₈	0.024	0.025	0.031	0.015	0.004	-0.293	2.416	42
I ₉	0.024	0.024	0.036	0.017	0.003	1.398	8.409	42
I ₁₀	0.024	0.021	0.088	0.011	0.012	3.344	17.832	42
I ₁₁	0.024	0.019	0.113	0.009	0.017	3.412	17.616	42
I ₁₂	0.024	0.022	0.076	0.012	0.010	3.416	17.717	42
I ₁₃	0.024	0.016	0.220	0.005	0.033	5.248	31.600	42
I ₁₄	0.024	0.015	0.293	0.000	0.045	5.359	32.782	42
I ₁₅	-0.024	-0.020	-0.006	-0.098	0.016	-2.814	12.378	42

Source: Authors' own calculations (data source: The Romanian National Institute of Statistics [77], processed in EViews 10 Student Version Lite).

The distribution of all the components (I₁–I₁₅) is leptokurtic and, in some cases (I₃–I₄; I₁₀–I₁₅), highly leptokurtic and peaked, due to the high values of Kurtosis. The latter measures the peakedness or flatness of the distribution of a series and if it exceeds the threshold of three (as in the case of all the analyzed components), then the distribution is leptokurtic [81]. Moreover, the distribution of the components I₃–I₄ and I₁₀–I₁₄ is highly skewed positively: the right tail is long and the mass of the distribution is concentrated on the left; results validated due to the high values of Skewness (a value of zero is specific to a normal distribution) [82]. Considering the distribution of the components graphically represented in Figures A1–A14 (Appendix A) and the results calculated in EViews regarding the descriptive statistics of the components, the following finding emerges: in Romania, there are only a few outlier counties that act as beacons of well-being and health: Bucharest, Cluj, Timiș, Iași, Bihor and Sibiu. Moreover, in the previously mentioned counties, most of the population live in the urban areas and this contributes to the generation of urban agglomerations, especially in Bucharest, Cluj and Iași.

According to the normal flow of the research methodology, the next step was to study the descriptive statistics included in Table 3 regarding the permanent resident population and the normalized composite indicator.

Table 3. Descriptive statistics of the permanent resident population and the normalized composite indicator meant to assess the level of wealth and health of the Romanian counties, year 2018.

	Permanent Resident Population	Wealth and Health Composite Indicator
Mean	528,679	0.024
Median	462,243	0.017
Maximum	2,133,941	0.162
Minimum	226,665	0.007
Std. Dev.	311,152	0.025
Skewness	3.368	4.493
Kurtosis	17.957	25.420
Observations	42	42

Source: Authors' own calculations (data source: The Romanian National Institute of Statistics [77], processed in EViews 10 Student Version Lite).

In 2018, the permanent resident population in the average Romanian county was 528,679 persons and that standard deviation from the mean was 311,152 (representing 58.85% of the mean). This finding highlights the existence of urban agglomerations, such as the one specific to Bucharest, with a permanent resident population of 2,133,941 persons (considered a county, but it is a city, the capital of Romania) with a nominal living floor (space) of 19.33 m². Another example is Iași, with a permanent resident population of 953,158 persons and a nominal living floor (space) of 15.74 m². The histograms from Figure 1 regarding the analyzed indicators were designed in EViews and the results consolidate initial findings.

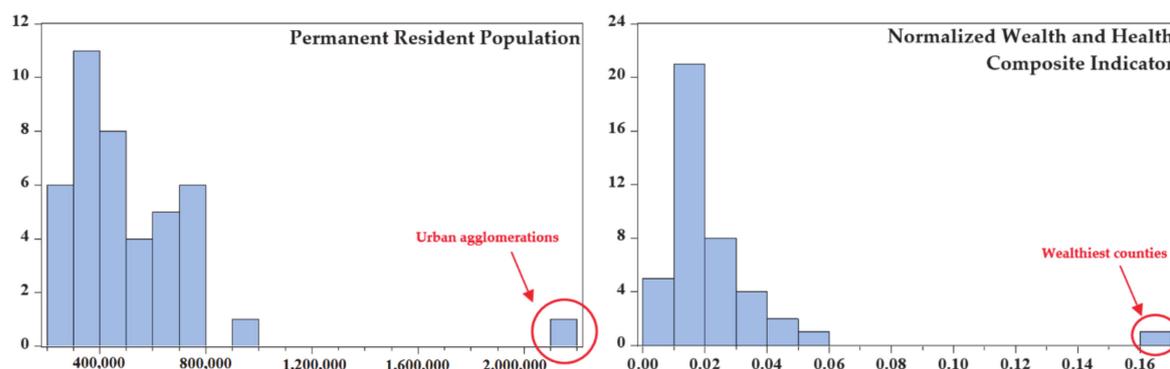


Figure 1. The histograms of the permanent resident population and of the normalized composite indicator meant to assess the level of wealth and health of the Romanian counties, year 2018. Source: Authors' own representation (data source: The Romanian National Institute of Statistics [77], processed in EViews 10 Student Version Lite).

The high values of Skewness (3.368) and Kurtosis (17.957) confirm the fact that, in Romania, there are only a few outlier counties with urban agglomerations, such as Bucharest, Iași and Timiș. Similarly, the distribution is almost identical in the case of the normalized composite indicator meant to assess the level of wealth and health. In the case of the latter, the distribution is even more positively skewed (4.493) and peaked (25.42), signaling the fact that there are less counties with high scores of wealth and health than the number of areas specific to urban agglomerations.

In order to better understand the relationships between the components of the normalized composite indicator meant to assess the level of wealth and health of the Romanian counties, the correlation matrix with significance levels (*p*-value) was elaborated in Table 4.

Table 4. The correlation matrix with significance levels (*p*-value) in the case of the 42 Romanian counties (reference year: 2018), used per component of the constructed composite indicator with which to assess the level of wellbeing and health.

	I ₁	I ₂	I ₃	I ₄	I ₅	I ₆	I ₇	I ₈	I ₉	I ₁₀	I ₁₁	I ₁₂	I ₁₃	I ₁₄	I ₁₅
I ₁	1.000														
<i>p</i> -value	–														
I ₂	0.435	1.000													
<i>p</i> -value	0.004	–													
I ₃	0.831	0.273	1.000												
<i>p</i> -value	0.000	0.080	–												
I ₄	0.802	0.240	0.984	1.000											
<i>p</i> -value	0.000	0.125	0.000	–											
I ₅	0.367	0.204	0.301	0.328	1.000										
<i>p</i> -value	0.016	0.194	0.053	0.034	–										
I ₆	−0.360	−0.038	−0.258	−0.248	−0.051	1.000									
<i>p</i> -value	0.019	0.809	0.010	0.113	0.748	–									
I ₇	0.380	−0.185	0.640	0.647	0.042	−0.168	1.000								
<i>p</i> -value	0.013	0.241	0.000	0.000	0.7896	0.288	–								
I ₈	0.273	0.048	0.211	0.188	0.130	−0.062	0.050	1.000							
<i>p</i> -value	0.080	0.764	0.180	0.234	0.411	0.697	0.753	–							
I ₉	0.395	0.358	0.105	0.036	0.137	−0.302	−0.295	0.177	1.000						
<i>p</i> -value	0.010	0.020	0.508	0.820	0.386	0.052	0.058	0.269	–						
I ₁₀	0.801	0.231	0.945	0.962	0.329	−0.227	0.591	0.181	0.091	1.000					
<i>p</i> -value	0.000	0.140	0.000	0.000	0.033	0.148	0.000	0.252	0.564	–					
I ₁₁	0.806	0.273	0.966	0.977	0.314	−0.214	0.597	0.182	0.048	0.985	1.000				
<i>p</i> -value	0.000	0.080	0.000	0.000	0.043	0.173	0.000	0.249	0.762	0.000	–				
I ₁₂	0.609	0.295	0.486	0.466	0.107	−0.085	0.196	0.269	0.253	0.493	0.541	1.000			
<i>p</i> -value	0.000	0.058	0.001	0.002	0.499	0.594	0.214	0.084	0.106	0.000	0.000	–			
I ₁₃	0.778	0.212	0.965	0.982	0.308	−0.279	0.657	0.121	0.002	0.937	0.947	0.437	1.000		
<i>p</i> -value	0.000	0.177	0.000	0.000	0.047	0.073	0.000	0.444	0.988	0.000	0.00	0.0038	–		
I ₁₄	0.752	0.241	0.955	0.955	0.246	−0.307	0.632	0.158	0.028	0.887	0.904	0.362	0.970	1.000	
<i>p</i> -value	0.000	0.123	0.000	0.000	0.117	0.048	0.000	0.318	0.860	0.000	0.000	0.018	0.000	–	
I ₁₅	−0.681	−0.177	−0.828	−0.852	−0.171	0.219	−0.580	−0.118	0.032	−0.875	−0.865	−0.304	−0.817	−0.785	1.000
<i>p</i> -value	0.000	0.263	0.000	0.000	0.278	0.163	0.000	0.456	0.838	0.000	0.000	0.050	0.000	0.000	–

Source: Authors' own calculations (data source: The Romanian National Institute of Statistics [77], processed in EViews 10 Student Version Lite).

The average monthly nominal net earnings is highly and positively correlated with the normalized number of doctors, dentists included (83.31%, statistically significant); with the normalized number of hospital beds (80.20%, statistically significant); with the normalized number of education units (80.10%, statistically significant); with the normalized number of classroom teachers (80.60%, statistically significant); with the normalized number of volumes in libraries (77.80%, statistically significant); and with the normalized number of the places in entertainment institutions (75.20%, statistically significant). Therefore, wealthy areas converge in the same direction, that of a well-developed infrastructure (sanitary, educational, recreational). However, they are not necessary green, as I_7 (the area inside towns and municipalities plus the verdure areas reported to the verdure areas) is, at best, more correlated with the normalized number of the volumes in libraries (moderate and statistically significant correlation of 65.70%). The reverse of wellbeing and happy cities, quantified from the perspective of I_{15} (the number of sentenced persons in penitentiaries), is highly and negatively correlated with the normalized number of doctors (−82.52%, statistically significant), the normalized number of hospital beds (−85.20%, statistically significant), the normalized number of educational units (−87.50%, statistically significant), the normalized number of classroom teachers (−86.50%, statistically significant), the normalized number of the volumes in libraries (−81.70%, statistically significant) and the normalized number of places in entertainment institutions (−78.85%, statistically significant).

Correlating the results regarding the classification of areas of wealth and health in Romania with the results regarding entrepreneurial resilience is dependent on the analysis of the descriptive statistics of the entrepreneurial resilience indicators included in Table 5.

Table 5. Descriptive statistics of the entrepreneurial resilience indicators, approached per county from multidimensional perspectives, timeframe: March–July; 2019–2020.

	Qualitative Approach (Recovery Rate)	Quantitative Approach (Direct Impact)
Mean	0.024	−0.024
Median	0.023	−0.023
Maximum	0.035	−0.001
Minimum	0.018	−0.062
Std. Dev.	0.004	0.015
Skewness	0.986	−0.679
Kurtosis	3.444	2.700
Observations	42	42

Source: Authors' own calculations (data source: The Romanian National Trade Register Office [83], processed in EViews 10 Student Version Lite).

The qualitative and quantitative indicators that measure the impact of the COVID-19 pandemic on the entrepreneurial resilience in the Romanian counties are graphically presented in Figures A18 and A19 (Appendix B). The descriptive statistics and the graphical representations contribute to validate the following findings:

- the recovery rate has almost a partial normal distribution (Skewness 0.986; slightly positive asymmetry and Kurtosis 3.444; slightly leptokurtic), signaling that, qualitatively, there very few outlier counties: Sălaj being the most resilient from this perspective and Argeş the least.
- the distribution of the direct impact (emerging entrepreneurs who did not start any new businesses, mainly due to the COVID-19 pandemic) is even closer to normality, but in a different way: the distribution is negatively skewed (Skewness −0.679) and slightly platykurtic (Kurtosis 2.700), with few and different outliers than in the case of the recovery rate, Bucharest (urban agglomeration) being the most affected area and Sălaj the least affected one.

Approached per county from multidimensional perspectives, the histograms of the entrepreneurial resilience indicators are graphically designed in Figure 2 and consolidate these findings regarding

the different facets of entrepreneurial resilience during the COVID-19 crisis through the lenses of the Romanian counties.

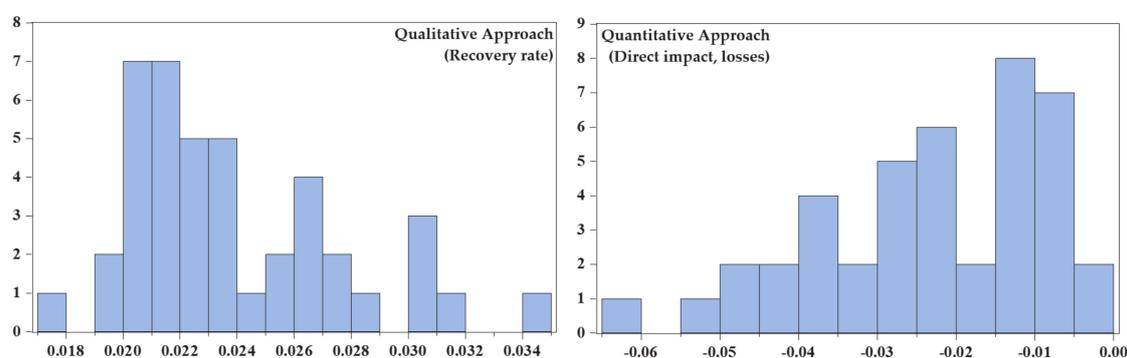


Figure 2. The histograms of the entrepreneurial resilience indicators, approached per Romanian county per multidimensional facet of entrepreneurial resilience. Source: Authors' own representation (data source: The Romanian National Trade Register Office [83], processed in EViews 10 Student Version Lite)

On one hand, the wealthiest Romanian counties, such as Bucharest (16.21%), Cluj (5.85%), Timiș (4.98%), Iași (4.85%) and Bihor (3.10%), have had an average qualitative entrepreneurial resilience response in the face of the COVID-19 pandemic (referring to the recovery rate indicator): 2.83%, 2.43%, 2.61%, 2.31% and 2.11%. On the other hand, the same wealthiest counties registered the biggest negative impact approached quantitatively, referring the share from the total (42 counties) of the emerging entrepreneurs who did not start any new businesses during the COVID-19 pandemic, if considering the same analyzed months corresponding to a time with no pandemic (March–July 2019 and 2020): Bucharest (6.21%), Cluj (4.83%), Timiș (2.96%), Iași (4.20%) and Bihor (4.65%). Therefore, the topic of entrepreneurial resilience requires a multidimensional approach.

4. Discussion

In Romania, the engines for economic recovery were demonstrated to be the communes located near the largest cities [80], because they do not have to be affected by a deep restructure in order to be resilient—they simply bounce forward by continuing their evolution in terms of the local economic structure. However, the wealthiest Romanian counties are deeply affected by the COVID-19 pandemic. Up to an extent, they can be considered urban agglomerations that need to rethink their economic structure or models and revamp some activities in the services sector. The wealthiest counties and cities became service-oriented providers, in various fields: research & development, accounting, financial, economic, education, health, culture, entertainment, recreation, etc. These areas glow in the geography of wellbeing and generate migration from less development or developing areas.

Happy and healthy cities are positively associated with sustainable development and wellbeing, therefore making it important for policy-makers to assess happiness levels in relation with the urban sustainability progress [84]. Consolidating the roles of happy and healthy cities contributes to a better understanding of the synergy between the components that significantly generate happy and healthy cities, engines of wealth in the economy of wellbeing.

Sustainability and resilience in the most happiest and healthiest cities are developed through innovation [85]. Happy cities are those that facilitate creativity and ensure chance encounters between people, stimulating their business appetite and potential for innovation. Urban agglomerations give a push to the locals to start working in teams consisting of highly motivated entrepreneurs with different backgrounds and skills [86–89] in order to find solutions specific to the needs of the happiest and healthiest cities they live in, and beyond—because digital solutions, for example, have a much greater and larger dimension: global. In the face of crises, such as the one generated by the COVID-19 pandemic, innovation and entrepreneurial resilience can successfully ensure economic recovery [90],

especially if the entrepreneurial spirit is stimulated through various methods. Those methods should not particularly encourage entrepreneurs to harness market opportunities only, but rather those methods should focus on encouraging entrepreneurial spirit through measures designed to help necessity-driven entrepreneurs to launch businesses designed to mitigate development gaps.

The diversity of Romanian entrepreneurial challenges calls for coherent measures, correlated with the level of wealth of each area. The many positive aspects of the wealthy areas, such as higher incomes, employment opportunities, access to health care and cultural activities, encourage emerging entrepreneurs to migrate to urban wealthy agglomerations, like Bucharest, Cluj or Iași.

This research brought an ardent issue of the Romanian economy in the spotlight. Findings confirm that, in the case of the wealthiest Romanian counties, necessity-driven entrepreneurs are the least resilient and the most affected by the COVID-19 pandemic. In developing counties, which are therefore less wealthy, resilience is higher in the case of necessity-driven entrepreneurs, because they aim at launching businesses that respond to the urgent needs of the local communities and there is no other solution for responding to local needs. This contributes the development of the Romanian counties that are less wealthy. No matter the degree of wealth, opportunity-driven entrepreneurs are much more resilient to the COVID-19 crisis than necessity-driven entrepreneurs, mainly because they have a fine sense of harnessing unexpected market potential.

Considering the results of this study, it seems likely that the wealthiest and healthiest Romanian counties will continue to be vulnerable from an entrepreneurial standpoint of view in the face of future times of crises, which might as well be pandemics. This can be mitigated if decision makers take the lead beforehand, think of actions designed to support entrepreneurship and implement them when necessary, based on the specific needs of each county. However, the wealthiest counties have the greatest potential to recover compared to those that are still developing, mainly due to the regional development gap.

In Romania, while emerging entrepreneurs are most likely located in urban agglomeration areas with high levels of wealth associated, necessity-driven entrepreneurs are also more likely to be affected by crises, such as the one generated by the COVID-19 pandemic, while opportunity-driven entrepreneurs will continue to seek harnessing viable business models based on favorable circumstances. Further research can be carried out in order to identify entrepreneurial resilience subtleties between necessity-driven entrepreneurs and opportunity-driven entrepreneurs. This analysis could help decision-makers anticipate different entrepreneurial behaviors during times of crisis, based on the different levels of wealth associated to location of the entrepreneurs.

5. Conclusions

Urban areas planning plays an essential role in shaping human health and wellbeing, alongside entrepreneurship. A systematic approach in relevant components is required in order to elaborate sustainable strategies for wellbeing and urban development. Taking these factors into consideration, the development of the small and medium enterprises plays a significant role in shaping the spatial dynamics, as they bring wealth and attraction to any area. In this context, the entrepreneur remains the main facilitator of regional growth, through the role of the agent of change.

Happy and healthy cities are in the spotlight in the economics of wellbeing, which is also the case of Romania, as demonstrated in this research paper. Even though Bucharest was analyzed in relation with the rest of the 41 Romanian counties, Bucharest is actually a city—the capital of Romania and its largest city. Even with this “disadvantage”—a city competing with counties—Bucharest grabbed the biggest share (16.21%) of the total value (national) of the indicator designed to assess the level of wellbeing and health. This proves that cities and urban agglomerations imply high levels of wellbeing and health. Based on the self-designed composite indicator assessing the levels of wellbeing and health, Bucharest is followed in this ranking by Cluj, Timiș and Iași. The latter are counties, but it is important to mention their county seats are nationally representative in terms of being urban agglomerations: Cluj-Napoca, Timișoara and Iași county seats (cities). Even though happy and healthy cities are

positively linked with sustainable development and wealth, the entrepreneurial part of the previously mentioned cities were less entrepreneurially resilient in the face of the COVID-19 crisis than those active in less urban and wealthy areas of Romania.

Whether or not the emerging entrepreneurs with new businesses initiatives in the wealthiest Romanian counties were prepared for a sanitary and socio-economic crisis, not all of them succeeded in mitigating the negative impact of the COVID-19 pandemic in order to launch their businesses in the market. Unfortunately, the authorities could not prevent this from happening either, but some fiscal and monetary measures were adopted in order to mitigate the negative impact of the pandemic on the entrepreneurial activities [91].

Entrepreneurial resilience is a multifaceted and complex topic. In this research paper, it was approached from two different perspectives, both through the lens of the wealthiest Romanian counties. On one hand, entrepreneurial resilience tends to be stronger qualitatively (recovery rate) and quantitatively (emerging business losses) in less developed areas than in those that are well developed, mainly due to the lack of entrepreneurial initiatives. Despite being less entrepreneurially resilient, qualitatively, the wealthiest Romanian counties are more urbanized than those in the development process. The wealthiest areas, such as Bucharest, Cluj, Timiș, Iași and Bihor, shine in the geography of desirability for entrepreneurs.

Consolidating resilience implies that entrepreneurs need to actively engage in business development activities meant to build belief and trust in their potential to overcome situation of socio-economic crisis and seek out networking events (more frequently online now due to the physical social distancing restrictions), lectures and mentoring opportunities. This facilitates learning by modeling more resilient entrepreneurs during the same challenging times. The mentoring activities can even act as incentive for entrepreneurial pursuits and boost for practicing business acumen and for seeking feedback when necessary from those resilient entrepreneurs who can be critical, objective yet encouraging at the same time.

The city of the future is happy and healthy if strengthened by entrepreneurial activities. Entrepreneurship brings economic progress to the city, generates hubs of knowledge, fosters innovation and harnesses creativity, all essentials for the development and consolidation of any happy and healthy city. During times of crisis, the quality of the entrepreneurial resilience is a result of a mix of multiple factors, such as educational, cultural, political and other factors. However, entrepreneurial resilience should be supported no matter the degree of happiness and healthiness of a city or locality. Intensified entrepreneurship can lead any locality and any city down the path to high levels of happiness and healthiness. The degree of happiness and healthiness of a city is dictated by the way policy-makers and citizens treat entrepreneurs.

6. Limitations and Further Research

It is important to highlight again that the composite indicator was built with data referring to the year 2018 (latest data available), while entrepreneurial resilience data was referring to the year 2020, therefore generating a temporal discrepancy in the analysis. However, this can be ameliorated when more data become available from the official sources. Additionally, the designed composite indicator can be improved by considering more components. Its correlation with the entrepreneurial resilience analysis can be furthermore studied by approaching other indicators specific to entrepreneurial resilience during the COVID-19 pandemic, such as: the number of firm suspensions, dissolutions, firms in insolvency and others.

Another limit of this research is that data and, more specifically, all the indicators included in this study, are approached only taking into consideration the national level. The values of the indicators were normalized by reporting to the national level (sum of values). Consequently, no results can be extrapolated, as they are specific to the situation of Romania.

Regarding the instruments provided by this research, if considered necessary, coefficients of importance (weight) can be associated to the components of the composite indicator. This is an extension

of the research that could help decision-makers to better understand the relationship dynamics of the indicators that measure wellbeing, should they decide to study the impact of promoting certain measures in future regional development plans.

At the national level, the research findings are relevant for the decision-makers, from a policy perspective, because the results of this study can be used as the premises for future regional development plans or even considered when elaborating national development policy. The latter should have entrepreneurs and entrepreneurial activities in the spotlight, since healthy and wealthy areas imply high levels of entrepreneurial initiatives. Even though some emerging entrepreneurs are discouraged by complex crises such as the one generated by the COVID-19 pandemic, it is the responsibility of the decision-makers to stimulate entrepreneurship nationally and consolidate entrepreneurial resilience during times of crises by resorting to cost-efficient instruments and resources.

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Appendix A

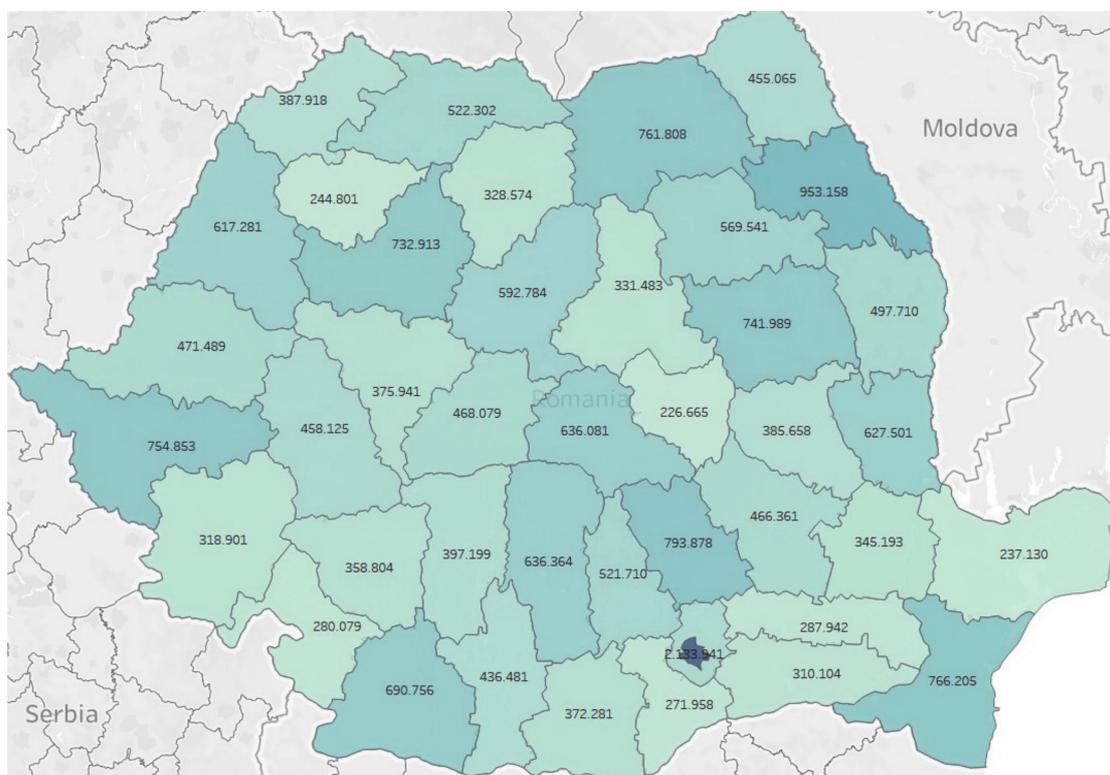


Figure A1. The Romanian permanent resident population, per county, 2018. Source: Authors' own representation (data source: The Romanian National Institute of Statistics [77], processed in Tableau Desktop 2020.3).

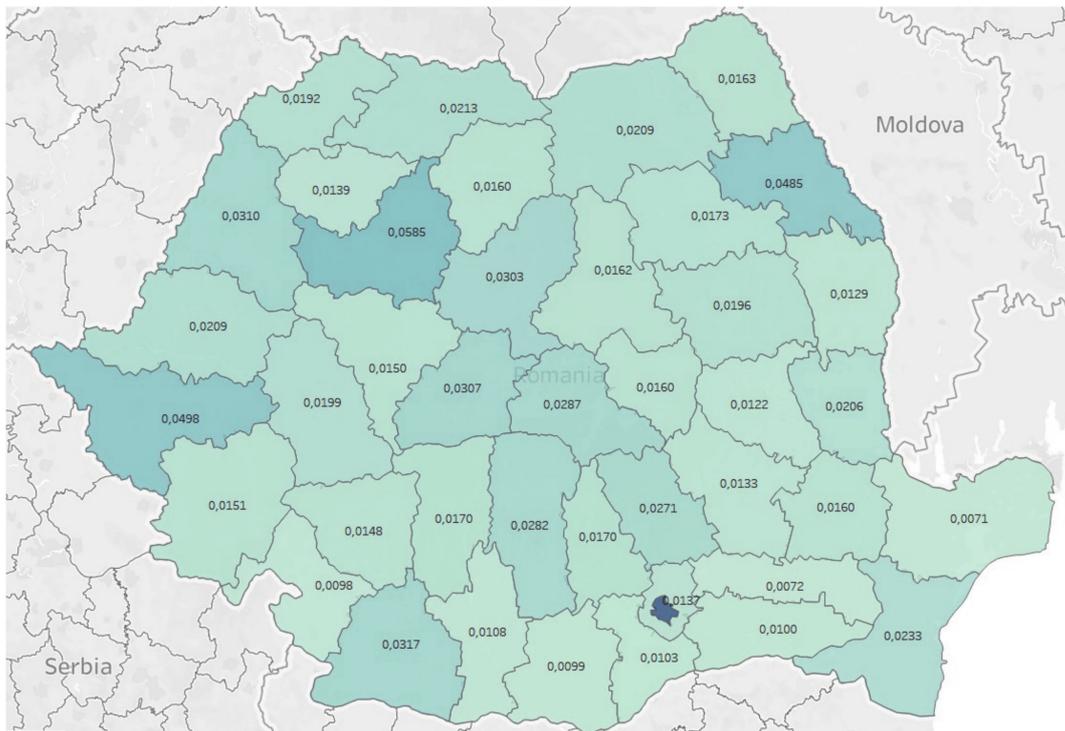


Figure A2. The normalized composite indicator for wealth and health, per county, 2018. Source: Authors' own representation (data source: The Romanian National Institute of Statistics [76], processed in Tableau Desktop 2020.3).

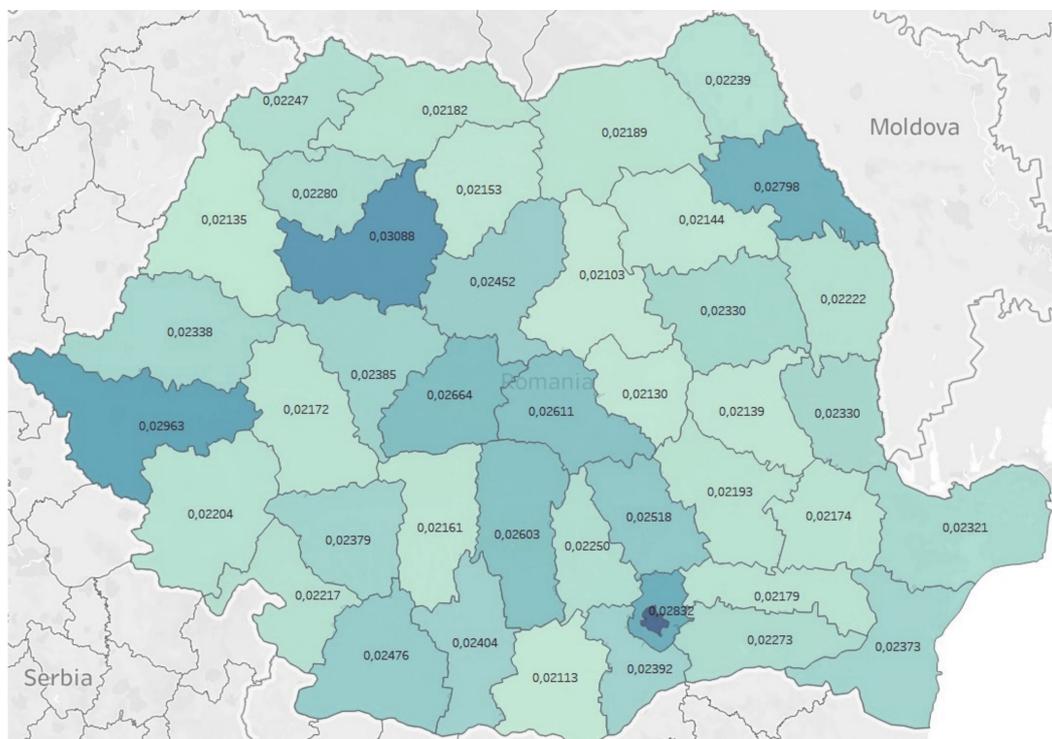


Figure A3. The normalized average monthly nominal net earnings (I_1), per county, 2018 Source: Authors' own representation (data source: The Romanian National Institute of Statistics [77], processed in Tableau Desktop 2020.3).

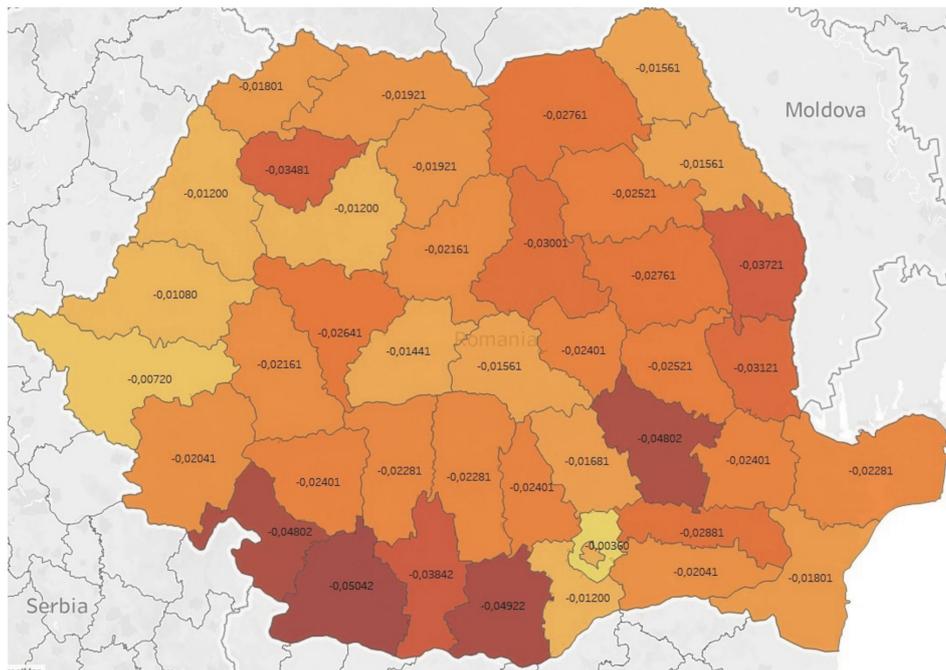


Figure A4. The normalized share of registered unemployed at the end of the month in the total labor resources (I₂), per county, 2018. Source: Authors' own representation (data source: The Romanian National Institute of Statistics [77], processed in Tableau Desktop 2020.3).

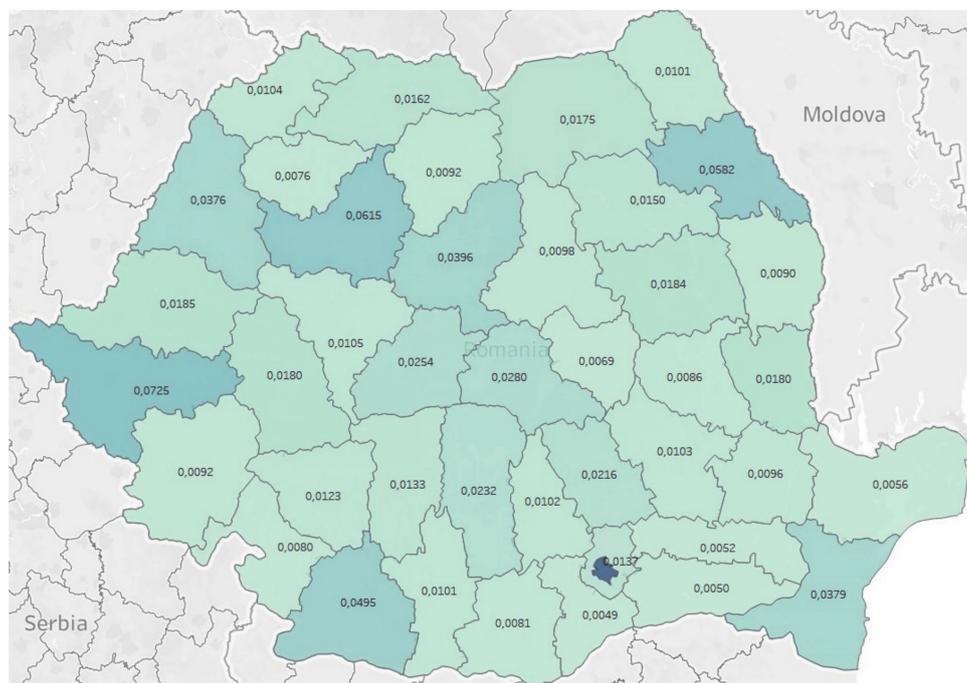


Figure A5. The normalized number of doctors (dentists included) reported to the permanent resident population (I₃), per county, 2018. Source: Authors' own representation (data source: The Romanian National Institute of Statistics [77], processed in Tableau Desktop 2020.3).

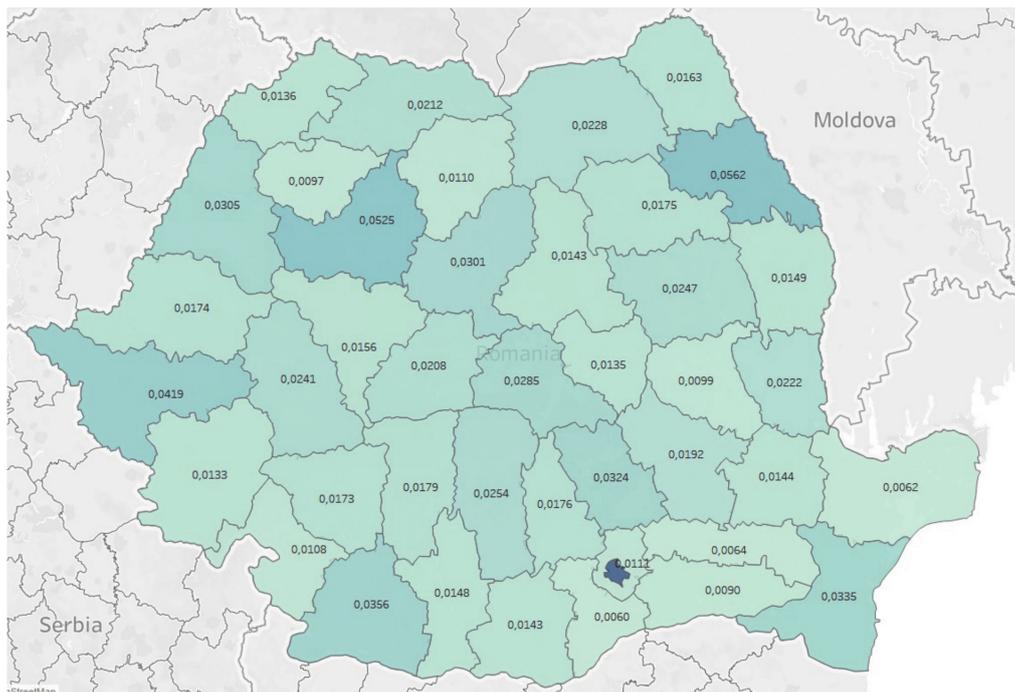


Figure A6. The normalized number of beds reported to the permanent resident population (I_4), per county, 2018. Source: Authors' own representation (data source: The Romanian National Institute of Statistics [77], processed in Tableau Desktop 2020.3).

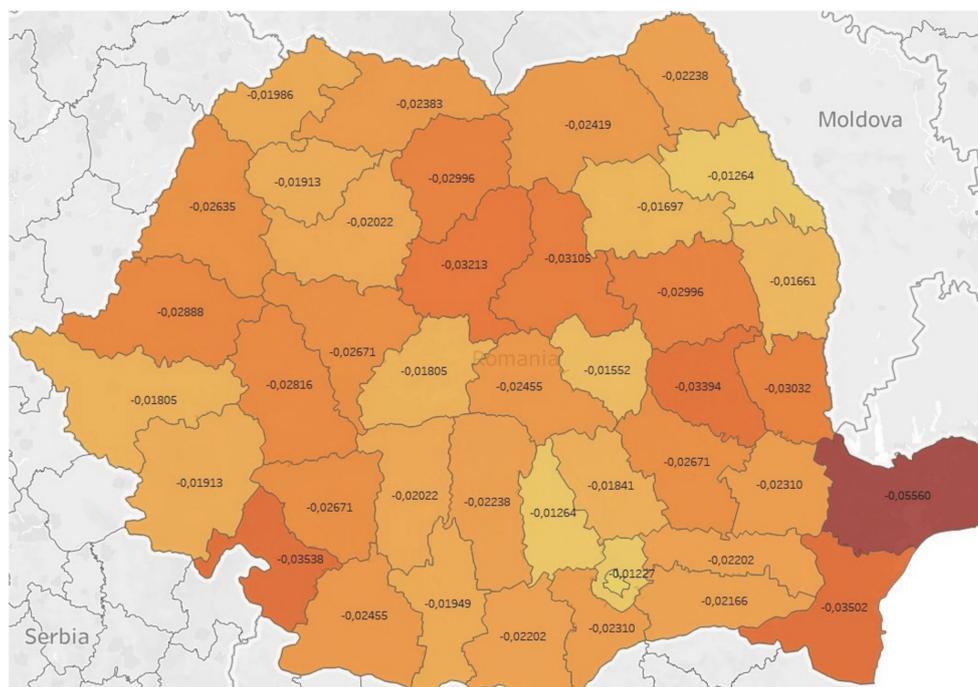


Figure A7. The normalized infantile mortality rate (I_5), per county, 2018. Source: Authors' own representation (data source: The Romanian National Institute of Statistics [77], processed in Tableau Desktop 2020.3).

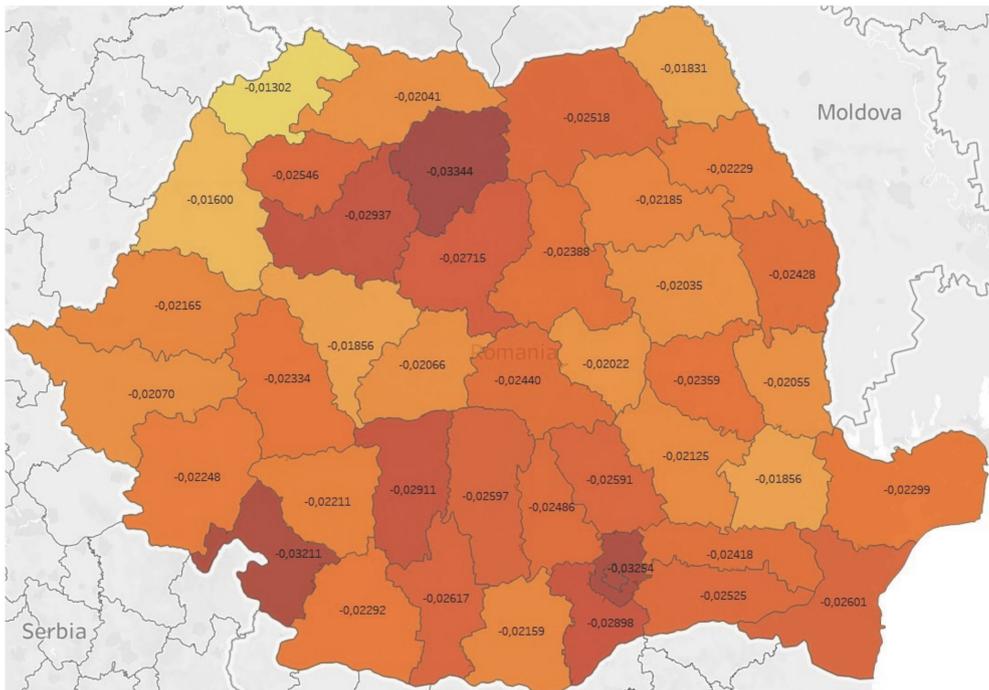


Figure A8. The normalized number of road traffic accidents with injuries reported to the permanent resident population (I_6), per county, 2018. Source: Authors' own representation (data source: The Romanian National Institute of Statistics [77], processed in Tableau Desktop 2020.3).

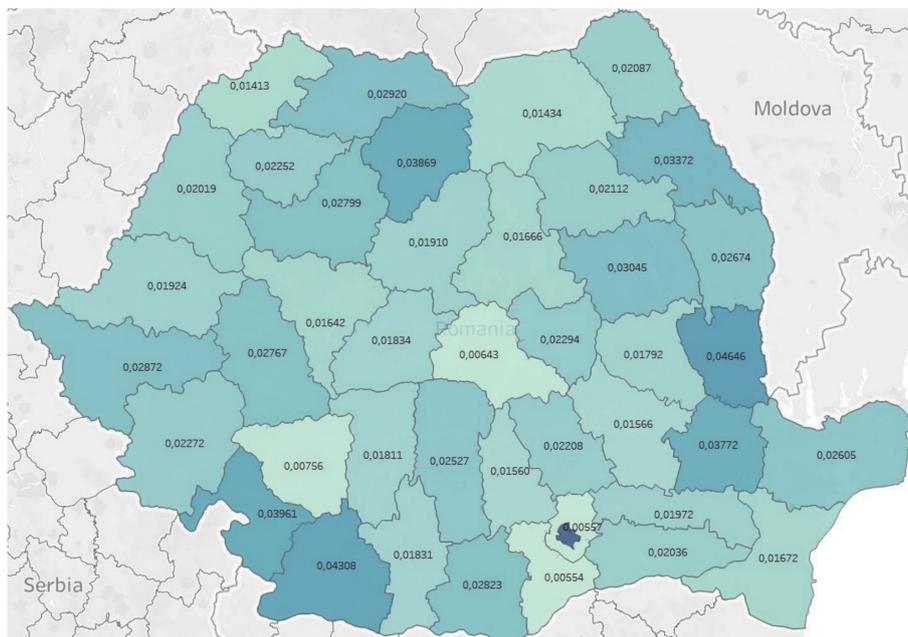


Figure A9. The normalized area inside towns and municipalities plus the verdure areas reported to the verdure areas (I_7), per county, 2018. Source: Authors' own representation (data source: The Romanian National Institute of Statistics [77], processed in Tableau Desktop 2020.3).

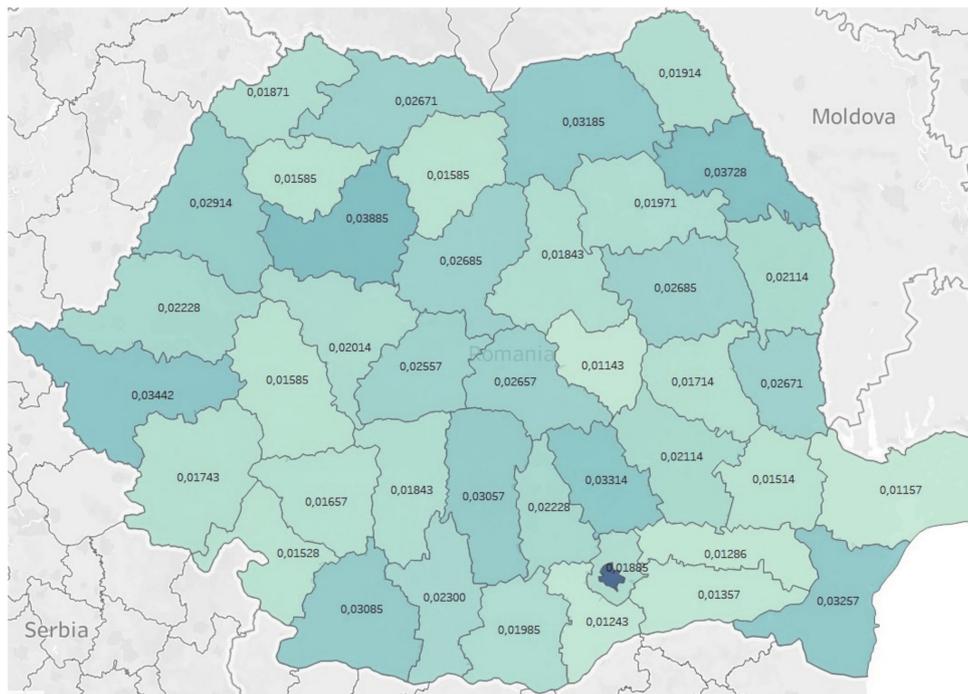


Figure A12. The normalized number of education units reported to the permanent resident population (I_{10}), per county, 2018. Source: Authors' own representation (data source: The Romanian National Institute of Statistics [77], processed in Tableau Desktop 2020.3).

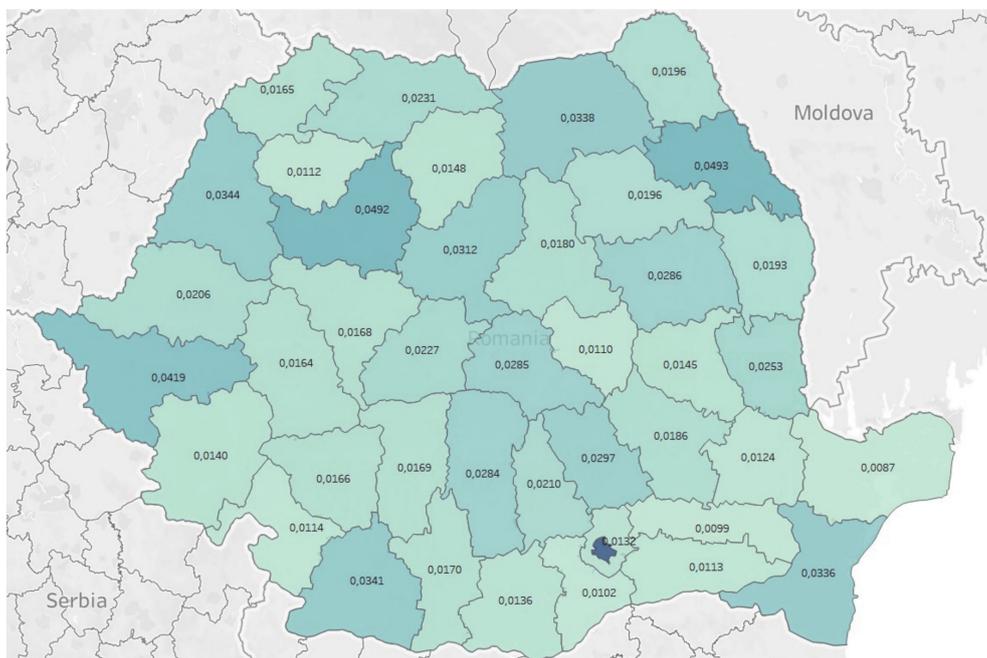


Figure A13. The normalized number of classroom teachers reported to the permanent resident population (I_{11}), per county, 2018. Source: Authors' own representation (data source: The Romanian National Institute of Statistics [77], processed in Tableau Desktop 2020.3).

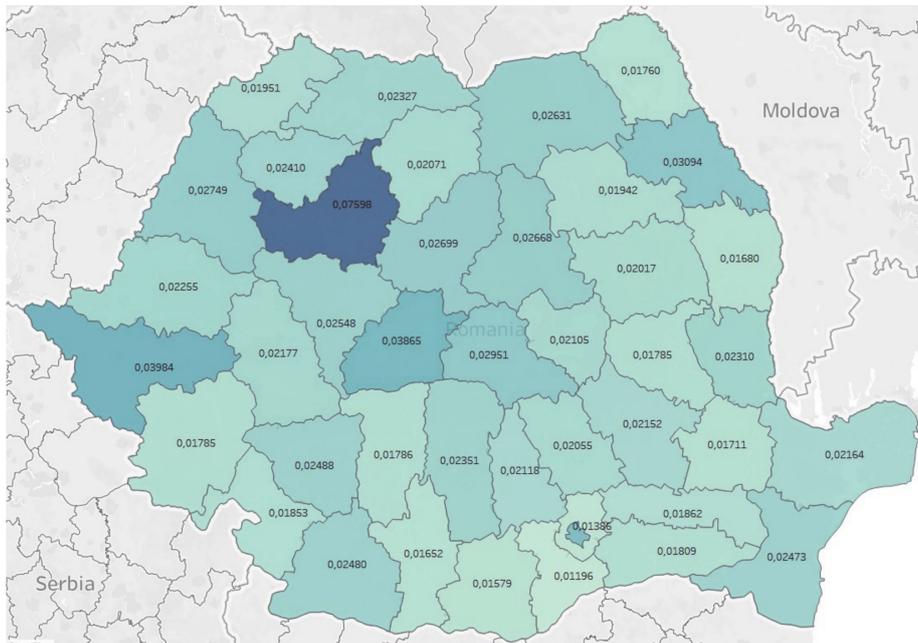


Figure A14. The normalized number of computers in school reported to the permanent resident population (I_{12}), per county, 2018. Source: Authors' own representation (data source: The Romanian National Institute of Statistics [77], processed in Tableau Desktop 2020.3).

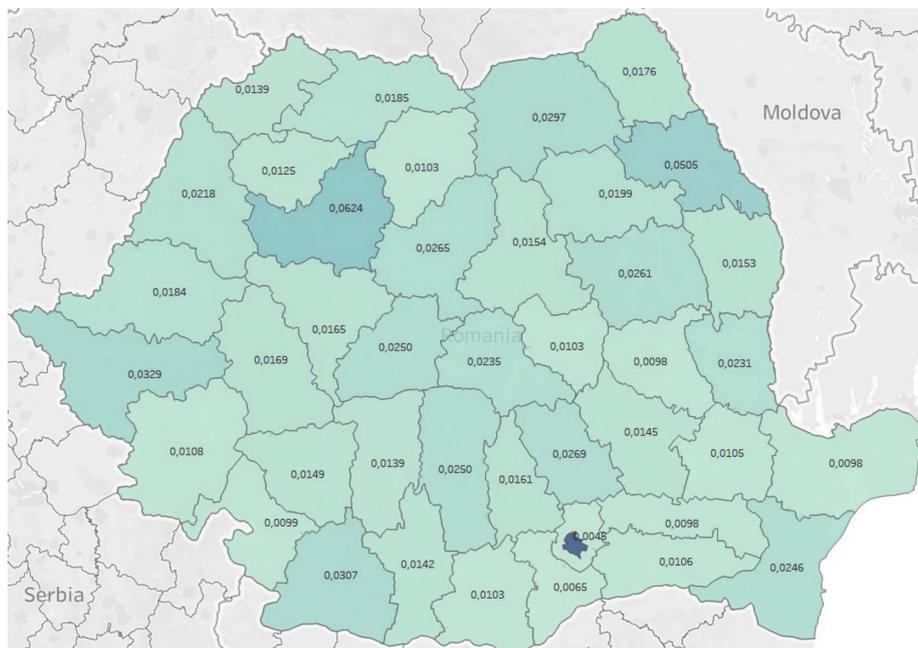


Figure A15. The normalized number of the volumes in libraries reported to the permanent resident population (I_{13}), per county, 2018. Source: Authors' own representation (data source: The Romanian National Institute of Statistics [77], processed in Tableau Desktop 2020.3).

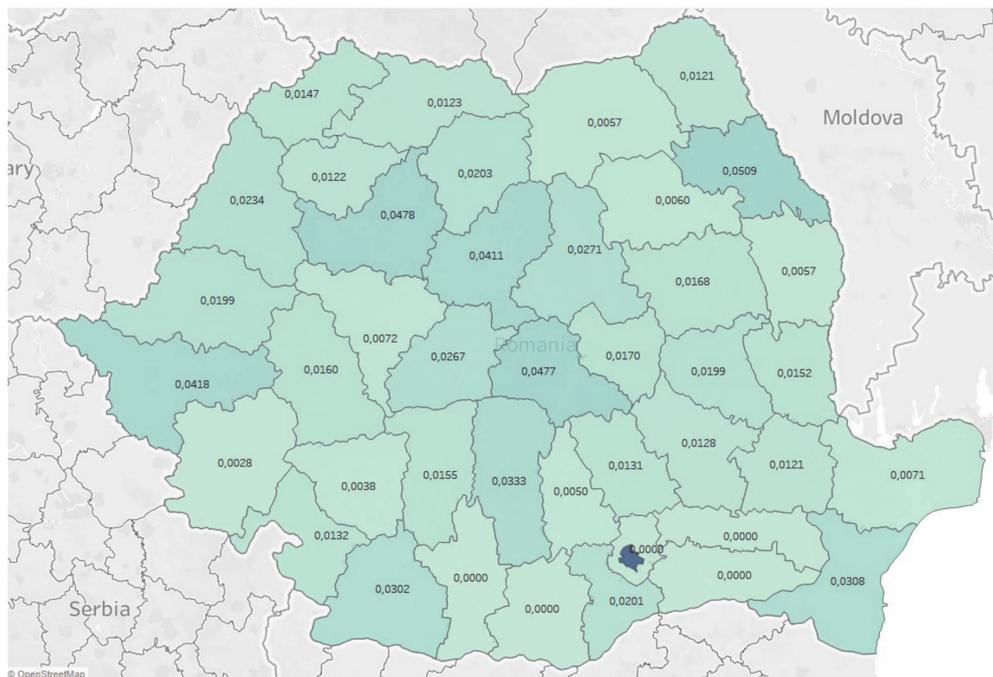


Figure A16. The normalized number of places in entertainment institutions reported to the permanent resident population (I_{14}), per county, 2018. Source: Authors' own representation (data source: The Romanian National Institute of Statistics [77], processed in Tableau Desktop 2020.3).

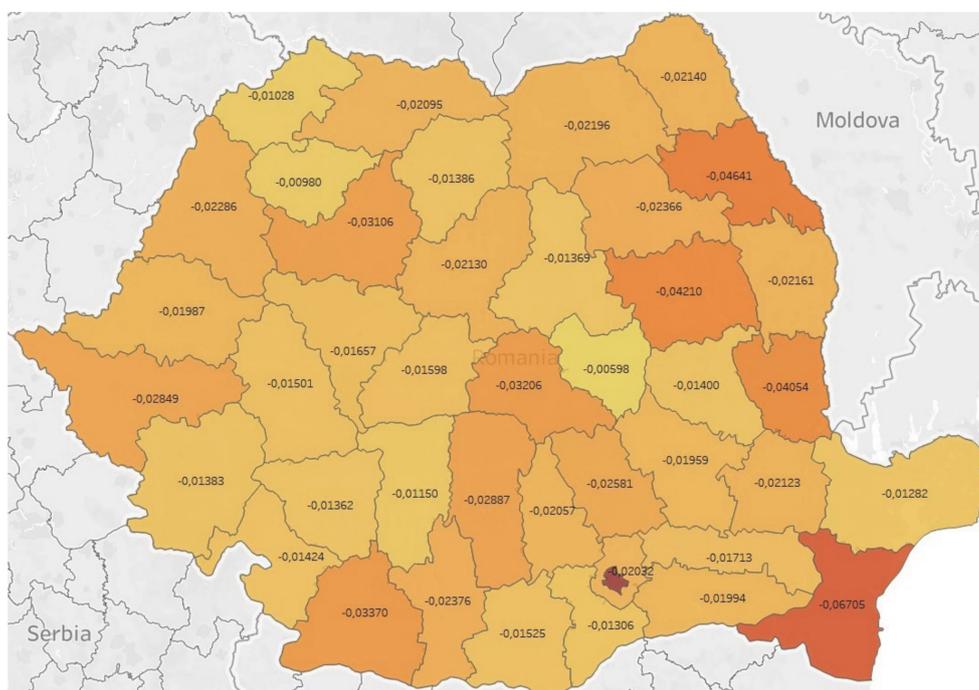


Figure A17. The normalized number of sentenced persons in penitentiaries reported to the permanent resident population (I_{15}), per county, 2018. Source: Authors' own representation (data source: The Romanian National Institute of Statistics [77], processed in Tableau Desktop 2020.3).

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