A correlation of the measurement techniques and their outputs in the study of the subnational level of politics

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Abstract: *At the beginning of the third decade of the 21st century, the role and value of subnational research in comparative political science are further strengthened, given that the political life of society is moving in two interdependent directions: localisation and internationalisation. Instead, the specifics of the subnational topic contribute to changes and innovations in the implementation of various methodological techniques in the study of subnational units and their structural elements. However, the question of correlating outputs of techniques – objective and subjective – still remains unresolved, and therefore actualises the following formulation: how they appear equivalent in the practical plane, as their theoretical context is illustrated balanced within equivalence in spatial research politics on a subnational scale. In other words, whether the results of each technique are approximate or distinctive from each other from the point of view of the final situation. In the article, a variable degree of correlation has been demonstrated between both techniques and also a hypothesis has been presented about the nature and type of such interactions on the example of three cases (Transcarpathian, Lviv and Chernivtsi regions) in Ukraine in the period 2010–2015.*

Key words: ***methodical correlation, objective and subjective measurement technique, subnational political regimes, Ukraine, subnational level of politics***

Introduction

Today the subnational topic in political science is definitely a new direction in its comparative research. Such studies are in their heyday and have a well-developed theoretical and methodological basis. However, the establishment of that situa-

tion was preceded by a complex and lengthy process of finding a specific subject of investigation, its specification and methodological support. In the temporal context, this process was disconnected from the political practice that had been carried out for more than thirty years, which is well described by Hall (2003) as 'discrepancy of ontology and methodology within single research'. The reason for this situation was the phenomenon of the 'major bias' (Rokkan 1970), when the main works of that time dealt with the national scale within political science and found its concrete reflection in the form of a prejudice as a 'whole-national bias' (Freidenberg – Suárez-Cao 2014: 156–158).

Now there are a sufficient number of states that began the democratic transition in the 20th century (Lijphart 1971; Dahl 1972; Fox 1994), but are still in transit. The analysis of subnational units in countries with a variety of hybrid regimes (national scale) helps to measure institutional transformations 'in a new way': through a 'bottom-up' view (take O'Donnell 1999 'colour zones' as an example). After all, if the system does not change for a long time, then the problem may be in its parts that do not try to do so. In fact, this is in line with the statement of the Argentinean political researcher, who noted that 'a regime, which outlines an entire system of regional regimes in the state, often has information that some of these regions function differently from itself' (O'Donnell 1993). Thus, a regime is just a shell for a complex institutional process, both at the level of the whole state and at the level of its units, but attention is paid more to the latter. This idea of the unevenness of economic and political processes within the state has long been proven by scholars and influenced the study of subnational political regimes, their typology (the first remark about this in Dahl 1972). This led to further research, which revealed the phenomenon of 'juxtaposition of regimes', when the legal inconsistency (contradiction) of the two institutional levels within the functioning of the system and its parts was simultaneously traced (Gibson 2005). Thus, the importance of these studies only increases from the standpoint of finding practical recommendations for improving the parameters of the socio-political dimension in the framework of democratisation.

At present, political science (in this direction) is not concerned with determining the need for additional argumentation for subnational investigations or other theoretical and practical areas, which existed during the first three decades (Snyder 2001; Hnatiuk 2019a: 93–109), but rather the problem of immediate implementation of existing research potential and its achievements in the widest scale of representation – both quantitative and qualitative. The topic, which emerged as a Latin American feature of territorial politics, has not only been successfully globalised in less than two decades, but has largely demonstrated its own 'viability' and adaptability in a variety of socio-political frames (Harrison 2007; Hendriks et al. 2011; Makara 2018). In other words, it has become an appropriate basis (even a necessity) for researchers in the

processes of both studying and measuring subnational politics in the state. In addition, this is a way to concretise, detail and verify the knowledge gained in the territorial focus of research attention.

However, despite the existing research successes, a certain methodical problem should be noted, which became acutely relevant in the last decade of the 21st century. The point here is that so far no subnational intelligence has focused on the unification of measurement tools for the formalisation, processing and presentation of outputs in a common plane for objective and subjective techniques. Performing such a task is extremely necessary and appropriate, as it will be possible to verify the equivalence (balance) of the scientific value of the results of research obtained among themselves in both ways of study, or to refute this idea. The goal of this process is clearly defining the framework for instrumentalising techniques and operationalising their correlation, as a result of which political researchers will be able to indicate or '=' if the hypothesis of proportionality is confirmed, or '+' if it is the fact of complementarity (internal dialectic), or '–' if it is based on the contradiction of conclusions (antagonism). Hence, the process of expressing objective and subjective methods under a common unified denominator will be an 'open field' for politologists for a long time yet, as it allows quite extensive processing of input data, and thus to vary the search for specific correlations between final results as broadly and representatively as possible.

At the same time, it should be noted that the subnational topic is changeable and flexible for research intentions, and therefore contributes to a variety of innovations: from expanding conceptual boundaries to deepening methodological tools; from designing techniques that are more structured and voluminous than previous counterparts, to attracting a wider contingent of comparativists by geographical and subject base, etc. So, we must be prepared that the point of 'rise' will be at its peak in the next decade, which is quite understandable, given the relevance and role in the scientific and practical sense of this idea for the current socio-political reality. It is just a matter of time. In this format, Ukraine, like many other states of the former socialist camp, is a clear example of a political system for testing the special subnational comparative method, objective and subjective techniques of measuring relevant territorial processes or phenomena, and attempts to correlate their outputs.

Structurally, the article consists of two key parts. The first analyses the historical perspective of the application of techniques of measuring processes and phenomena at the subnational level of politics – objective and subjective, and critically summarises and evaluates the consequences of these transformations. This was done in order to understand the logic of the thematic discourse (its current state) in accordance with the problem posed – the lack of correlation between the methods and their output results in the study of the appropriate territorial scale. The second part highlights the methodological aspect and the

results obtained after testing both techniques on three case examples from Ukraine in the period 2010–2015.

History of techniques: what we know about subnational research

Political researchers who have observed the subnational topic, only from the middle of the first decade of the 21st century, began to use the concept of measurement as the main or additional (no less relevant) basis for the typology, classification and definition of final results for the study of the subnational political regimes or phenomena in the territory where they operate/occur. Today two techniques are well known in political comparative studies – objective and subjective. It was demonstrating in the form of situations when scholars began to construct their authorial ways of studying phenomena and processes through dialectically dependent and simultaneously dual, by the nature of the foundation, forms – institutional and expert.

I. Institutional (objective) techniques

The studies of subnational political regimes have generally been conducted using objective techniques, when we take into account the context of their representation and quantity for the whole stage of the history of topic. Moreover, this 'institutionality' of methods meant that at the time of its construction, only two dimensions were preferred, namely, electoral and institutional (usually related to the power configuration in the post-election period). Consequently, all objective techniques are quite diverse, despite the common grounding principle.

At the turn of the 21st century one of the first scholars to build a method for analysing the degree of democratic development of territorial units on a subnational scale through the institutional dimension was the comparativist Hernández Valdez (2000), who applied his technique to 31 Mexican states between 1989–1999: from the moment when the opposition was given the opportunity to embrace the real power in the context of its alternation. As a result, defining the way of studying the administrative parts of the state as a *'comparative index of local democracy'*, the researcher included the following five indicators: a) the effective number of parties; b) acquisition of the governor position for opposition; c) the effective number of parties in the representative body of each state; d) total amount of violations of civil rights and freedoms per 100 thousand people in the subnational unit; and e) protection of civil rights and freedoms in the relevant spatial consideration (quantitative fixation). The scholar, if we carry out the analytical connotation of the matrix with all the parameters, focused on two fundamental institutional markers: competitiveness and mechanism of alternation of power positions at the subnational level during democratisation.

Towards the middle of the decade, a pair of researchers, Beer and Mitchell (2004), presented a technique for measuring the institutional development of regimes (also for Mexican states) through the *'polyarchy index'*, which is based on the electoral and social dimensions of democracy. They introduced two key indicators of subnational democracy, namely: a) voter turnout and b) share of electoral support for the ruling and/or opposition sides (it could be both a leader and party, and party coalitions, respectively). Based on this determinism, the technique can be described as periodic, relating to specific cycles of political time (as an electoral stage of the struggle for power in the unit). As a result, this method, despite its simplicity (both in implementation and interpretation of data), has established itself as one of the main institutional components in future ways of studying the phenomenon of subnational political regime, because it appealed to the context of formation and configuration public power within the territorial unit.

On the other hand, Borges (2007) highlighted a broader approach to assessing and measuring the strength of the subnational ruling elite through an electoral indicator (matrix) – the *index of 'electoral dominance'*, which was based on three indicators. Therefore, using factor analysis, he developed a set of parameters of party and electoral competitiveness at the state level of Brazil, which contributed to the measurement of evaluation of elites and their ability to control the electoral arena of a particular territorial unit. Ultimately, these methodical implications have shown that state-level politics are becoming increasingly competitive and factional, even in territorial units where the definition of the regime has been described as a bastion of oligarchism and political bossism, on the one hand. In contrast, the empirical component emphasised that electoral dominance is still rooted in less developed and urbanised subnational units. In general, the researcher's achievements are significant, despite the use of not a new, but, of course, an expanded electoral format in assessing the specifics of constructing power structures in subregions, as the conclusions allow us to understand not only the electoral dimension, but also its post-consequences. It is important to avoid situations of scientific misunderstanding and misinterpretation in this type of investigations.

In 2008, another technique was tested by a group of scholars (Goldberg – Wibbels – Mvukiyehe) to identify features of democracy in 50 USA units at the subnational level between 1929 and 2002. They constructed a field of *'competitiveness of the electoral environment'*, which accumulated two indicators, in particular: a) the margin of victory in gubernatorial elections and b) the vote share of the incumbent governor of the territorial unit (state). It should be noted that the construction of a matrix showing the degree of competitiveness of candidates is appropriate for countries with more democratic national regimes (correlation from approximate to consolidated types), because the markers used by political researchers were too 'narrow', or more than minimalist, to define the regime as

democratic even in the electoral dimension. Nevertheless, the factor of the 'federal state structure' lays a much broader context for interpreting the results of the study, but the unification of methods for unitary systems is highly questionable. After all, it further actualises the probability in which autocratic regimes can be defined as democratic, and the degree of 'democracy' of territorial units highlighted in an inappropriate tie between themselves and the national scale. Therefore, much depends on the choice of evaluation scale and appropriate operationalisation: we need to understand where the quantitative limits of compliance/non-compliance of markers are in the analysis of the socio-political dimension.

The next important technique developed by political researcher Giraudy (2009) and presented in her dissertation. It should be noted she did not outline methods through the context of 'index', as the scholars had done before, but highlighted as a *'subminimal definition of subnational democracy'*, which reflected identical institutional discourse during the study of processes and phenomena of such a territorial level. The whole theoretical structure was represented through three levels, including basic, secondary and indicator, and the linkages between them highlighted as ontological, substitute and logical ('or'/'and') aspects of interaction.[1] A particularly important point is the formation of the total result of data processing in technique, which was determined alternately in obtaining intermediate results gradually: first – at the indicator level – in the additive way, and then – at the secondary level – in the multiplicative way. The researcher also added that if there is non-compliance with the conditions in one dimension, it directly leads to zero results. That means we will obtain a definition of the type of each subnational political regime as undemocratic or authoritarian. In general, her intelligence concerned political practices on the example of 24 provinces of Argentina from 1983 to 2006 and 32 states of Mexico between 1997 and 2006. At the same time, Giraudy managed to demonstrate a broad institutional technique of measuring subnational political regimes, which is quite self-sufficient for use in states other than Mexico and Argentina (for example, Ukraine). In some works (Karmazina et al. 2018, Hnatiuk 2019b, c, 2020), it showed how some technique components can be successfully operationalised and adapted for Ukraine, which is geographically very far from America. On the other hand, many scholars (Pino Uribe 2013; Makara 2018; Sevilla 2018) in different parts of the world have been able to either supplement, or improve, or use the methods (in part or in full) to test in the political practice of their countries. Thus, it can conclude that there is some institutional universality of techniques aimed at studying the subnational level of politics, despite the fact that this territorial scale is even more heterogene-

1 For the author, within the framework of the democratic regime (basic level), the key points were turnover, executive and legislative contestation and clean elections (secondary level), which incorporated various markers of the indicator level. See more in Giraudy (2009).

ous than the national equivalent. Yet this technique does not appear as static and completely unified for all cases of understanding, which is obviously in terms of scientific objectivity and due to its internal structural potential for adaptation in various political systems on a subnational scale. Therefore, we can emphasise that the method is as abstract as possible in a methodological sense, but exceptional (targeted) for subnational territorial units around the world in an instrumental sense.

Another technique for studying the specifics of subnational politics on the example of the Argentine provinces demonstrated by Behrend (2011). It is based on two features. First, the definition of the analysis method of processes and phenomena understood through the concept of *'unevenness of democracy'* (this name can also be used to denote the index that covers the whole technique), or outlining the variability of types of regimes in the degree of their democratic proximity, but not through a linear dichotomy of autocracy and democracy. In other words, this meant that the presence of less democratic subnational units in relation to more institutionally developed counterparts to them determines a hierarchy of such cases on the scale of quantitative and qualitative democratisation. Here, of course, we have to take into account a condition that such regimes can indeed belong to the democratic type, even in low institutional quality. Secondly, this technique appeared as non-classical for others that existed before, because in its structure it did not have a measure (quantitative degree), but used an evaluation-gradation dimension of qualitative definition, which was the basis for ranking subnational political regimes. Finally, the researcher introduces the concept of provincial 'closed game', which means 'subnational political regimes, in which a family, or a reduced group of families, dominates politics in a province, controlling access to top government positions, the provincial state, the media, and business opportunities' (Behrend 2011: 153).

As a result, we can notice such strengths and weaknesses of the technique. On the one hand, the advantages include the following features:

a) the presence of a detailed structure (the institutional profile), which expressed through the already established three-level construction: first a dimension (index), then a marker as a mechanism for outlining action/non-action and subindicator as a condition for compliance/non-compliance of this mechanism;
b) the use of evaluative-gradational symbolisation of all aspects of politics as a non-numerical hierarchical nomination, which determines the qualitative definition of subnational regimes within democracy and 'non-typological context', which eliminates the probable errors while quantifying the regime types.

Instead, there are some disadvantages, namely:

a) lack of direct quantitative measurement along with symbolic evaluation;[2]
b) the complexity of the method without the author's auxiliary interpretation of the quantitative and qualitative definition of regime parameters, and therefore the way of their analysis loses the feature of universal extrapolation to cases outside the context of Argentina, despite common institutional markers used to build this tool.

In sum, this technique is unique in terms of conceptualisation, but due to the chosen way of study becomes complicated, less universal in realisation and somewhat methodical deprived, as it reflects as 'disposable' (to a single case of study) or suitable to states (for understanding in detail the algorithm of the author's research logic) which bordering Argentina. On the other hand, all institutional dimensions that are highlighted by Behrend are common enough to be used as a component for another scholar's technique. This may not only partially reproduce the conceptual idea, but also display its research algorithm in other political practices.

The Colombian researcher Pino Uribe (2013) in his method developed an index *'the trajectory of the political regime'*, which integrated a combination of two indicators, namely: a) competitiveness of political actors during the electoral period and b) real political power acquisition through fair, clear and free elections. As a result, it forms immanent institutional features of electoral competition (this should consider connotatively), which manifested in some trajectories of 'closedness' or 'openness' of the development of political regime within territorial units. Although there is no 'indicator of electoral competition', it clearly demonstrates how the distribution of electoral power is carried out according to the consequences of the completed elections. It is in this context that he interprets the 'closure' or 'opening' of the regime. The researcher analysed nine mayoral election cycles for the period of 1988 to 2011. Based on such chronological interval, four types of 'trajectories' of political regime development were classified, which was determined by a certain percentage of electoral competition. Here Pino Uribe talks about the following varieties (name, quantitative expression and colour delineation of the trajectory): a) 'open', 20 % or less (red line); b) a combination of 'closed' and 'open', the range between 20–35 % (green line); c) 'stable', variations in the range of 35–45 % (blue line); d) 'closed', more than 47 % (black line). In general, a 'movement' of electoral competition ranged from the black 'closed' spectrum (low level) to the red 'open' (high level) development of the political regime. At the same time, there

2 It is possible that the scholar did this by default (additive or multiplicative methods and separate, synthesised or alternate forms), but this aspect was not mentioned in her work. Therefore, an additional basis for strengthening or arguing the place of the subnational political regime on the ranking scale has omitted.

may be situations in which the dynamics illustrate cases with balancing, and sometimes reversible change of two species (green dimension) or concentrate in a form where the approach to a particular variety is relatively unattainable, that is stable in definition (Pino Uribe 2013: 39–49).

In contrast to the classical studies of subnational political practice, he stopped even lower in his territorial scale of analysis (at the municipal level) as part of the subregion space. This is what allows a more detailed consideration of the trajectory of the regime's evolution. Yet, the use of appropriate 'space reduction' significantly limits an instrumental testing of institutional dimensions noted by Latin and North American political scholars. The fact is that his technique demonstrated a 'movement' backwards in the methodical aspect, as it was delineated exclusively by the electoral spectrum (only competition context), as researchers did in the early 21st century. Moreover, it simultaneously outlined the discourse of the subnational topic, which concretised research intentional of comparatists in understanding, measuring and analysing the features of territorial politics. After all, the method is quite appropriate to be incorporated into a broader approach (as an element of a holistic project) for a more comprehensive explanation in the form of political regime and its functioning in scale of each states ` unit.

At the end of the second decade of the 21st century in the research of Mexican scholar Sevilla we can find the largest methodical representation regarding the measurement and evaluation of subnational political regimes (Sevilla 2016a, 2016b), and an analysis of the governor strength on the example of Mexico (Sevilla 2019).

In his research (Sevilla 2016a) he tried to demonstrate a tool for measuring democratic change (their presence or absence) at the subnational level through the synthesis of markers of alternation and electoral competitiveness. Under the latter concept, the scholar interpreted the electoral distance between first and second place after the election. Moreover, 'if the electoral competitiveness is below 10 %, then there is uncertainty as to who will win, and the competition itself will be fierce. Therefore, the closer to 0 %, the more competitive the elections will be. Instead, the further it is from 10 %, the election will be the less competitive.' The choice of limits, as noted by the scholar, is quite subjective, but sufficient in the basis of where the election can be defined as competitive (Sevilla 2016a: 17). The key point was that Sevilla highlighted that the electoral dimension is much more diverse than the purely competitive aspect. Apparently, this contributed to the improvement of his technique in subsequent investigations. In another paper (Sevilla 2016b), the researcher proposed a new view on the measurement and theorisation of the regime types at the subnational level, where he synthesised not only the electoral dimension in an expanded form, but also added other institutional indicators. For this purpose, he highlighted the conceptual framework when defining the types of

regimes (Sevilla 2016b: 14). At the same time, taking into account the set of analytical parameters (see appxs. 1–3 in Sevilla 2016b: 20–22), he formulated the theoretical and practical consequences of the implementation of methods in the form of six theses.[3]

As for the markers` measurement, the politologist used the additive approach. In addition, he performed a numerical ranking of regime values in the range from 0 to 0,99: for autocracies – from 0 to 0,33; then the range of 0,33 to 0,66 – for anocracies; and then 0,66–0,99 for a democratic dimension. As Sevilla remarked, such simplicity of indicators calculation is probable only in theoretical perception (ideal condition), because in practice any political regime is able to combine parameters of different institutional levels (from autocratic to democratic). Therefore, it requires a specific (unequal) scale for evaluating markers with a balanced quantitative delineation of measurements. That is why the 'regime sum' is an equidistant institutional distance from other values, first methodically, then methodologically, conceptually and only then mathematically, but not vice versa.

In one of his most recent works (Sevilla 2019), the scholar made an attempt to derive an index of *'governor's power'* within a subnational unit on the example of all Mexican states. It was based on two indicators which correlated with each other: a) the context of the governor's power exercise and b) the types of territorial resources and the possibility of their use. Based on this, the structural interaction of the components formed the index of 'governor's power'. As a result, Sevilla created four complex combinations that accumulated institutional, administrative and informal aspects of power configuration: a) subindex of subnational power of the governor (A + B); b) governor's national influence subindex (C + D); c) subindex of the formal power of the governor (A + C); and d) the governor's informal governance subindex (B + D). Thanks to this work, the researcher analytically combined, on the one hand, subnational and national (spatial), and on the other, formal and informal (communicative) dimensions into a single matrix. Each such segment assigned a quantitative potential (percentage/share) in the technique to measure the governor's power (Sevilla 2019: 214, 233–234). Consequently, flexibility in the application of method has made it possible to obtain results on the conceptualisation of the phenomenon and its measurement through the index at the selective (partial) and comprehensive (full) levels in connection with other phenomena of socio-political life.

In general, Sevilla for several years qualitatively transforms his technique through adaptation to modern challenges on a subnational scale of politics. Starting from the measurement of substate processes from the electoral dimen-

3 We will not dwell on the content of these six theses. However, it should be noted that they qualitatively reflected the correlation between the quantitative assessment of the subnational regime and its definition. And this is an extremely important aspect of this type of research. See Sevilla 2016b: 15 for more details.

sion, he understands that the breadth of the defined field of analysis incorporated other institutional contexts/spectra, which must be taken into account when studying the subnational political regimes. Finally, detailing and deepening the understanding of the territorial level of the state, the scholar tried to assess (quite successfully) the special institutional 'points' that become relevant factors for the functioning of the subnational political regimes *de jure et de facto*.

In conclusion, (regarding institutional techniques) we need to observe the method by Gervasoni, who presented it in an article about study of subnationalisation on the example of Argentina for the period of 1983–2003 (Gervasoni 2010).[4] The scholar focused on two main dimensions of political democracy: a) contestation that presents in all institutional aspects and b) constraints of power that stem from concept of 'liberal democracy'. The corresponding two-dimensional fixation is due to some situation where other important democratic attributes, in particular respect for civil rights and freedoms, 'cannot be incorporated because of the unavailability of comparable data for all province' (Gervasoni 2010: 314). In other words, a presence of any institutional segment determined by a probability of obtaining information about it for all cases, which we can ascribe to the strengths of the method, as it accumulates the internal potential for expansion, rather than becoming a certain rigidity.

Gervasoni proposed the author's index of *'subnational democracy'*, which included five indicators, grouped in two combinations: a) executive contestation and legislative contestation (two indicators of electoral competition) and b) succession control, legislature control and term limits (three indicators of power concentration in the incumbent). He explained the choice of these parameters, given the close causal link between substantive freedom and competitive elections, in which electoral contestation is usually interpreted as an indicator of their effectiveness. They can also reasonably be examined as 'causal markers', given the evidence that high competition leads to a stronger responsiveness from national and subnational public authorities (Gervasoni 2010: 316). As a result, using this technique of institutional understanding of territorial space (we think about the analysis, study and measurement of subnational phenomena and processes), we can identify its strengths, namely:

a) it is an accumulative-dynamic model of 'capturing' the socio-political features of the institutional discourse of the unit and, at the same time, phenomenologising their temporal delineation in a particular period as a separate case within the national scale;
b) it combines key institutional dimensions for analysis of politics as a holistic representation, integrating competitive and representative-

4 Despite the fact that the presentation of the material is carried out in chronological order, in Gervasoni's case, there is a targeted asynchrony, because his methodical development (its importance) for subnational studies is undoubtedly the best among all others available in comparative political science at the beginning of the third decade of the 21st century.

-executive parameters. In other words, electoral and power spectra, respectively;

c) the system is characterised by a high level of flexibility and adaptability, because it is able, firstly, to expand the institutional dimension at the expense of the social sector, and, secondly, to be tested in any state, mainly through an appropriate unified structure (it is a situation when, for example, in federations, there is an elected position of governor, and in unitary states it is absent, but a sufficient basis for institutional interchange for these political systems (for the last of the two) is a position of head of city in every subnational unit. Moreover, there are plenty of such examples of equivalent substitution in modern research);

d) availability of potential for constructing correlations through formalisation of numerical data with other spheres of socio-political field: economic (national transfers, resource lease and development), cultural (culture and subcultures) or civil (social capital, popularity of political actors, social communication and its nature);

e) processing of input data by means of a balanced combination of additive and multiplicative ways that influences levelling/reduction of hyperbolisation of mechanical effect and mistakes of progression.

Along with this, it is appropriate to assume (and not without reason) that there are no serious shortcomings and omissions in his method at the basic level (electoral and power). Yet, due to the allocation of immanent qualities of such a dimension within a territorial unit, as well as detailing in the structural space at a lower level – municipal – there is an objective need to highlight additional institutional features, including political, ideological and civic. On the other hand, it is quite easy to find a logical explanation for these 'weaknesses'. First, Gervasoni's technique, as noted earlier, is capable of adjusting to a much broader scale in the study/measurement of phenomena and processes at the subnational level. In other words, such an approach is possible in extrapolation to a plane outside the practice of Argentina, even in the author's version or with some additions to the new systemic context. In addition, secondly, we should not forget about the aspect of 'concept-measure coordination' (Goertz 2006), which was optimally observed. This is reflected in the fact that the three-level structure (similar to Giraudy), its numerical formalisation and method of calculation do not cause significant questions, conjectures and objections. Thus, his technique now appears as a central (core) methodical guideline in the construction of ways of studying subnational political regimes at the beginning of the third decade of the 21st century.[5]

5 Based on this approach, the institutional indicators of development of various parameters of the analysis were measured on the example of three subregions in Ukraine. More details will be given in the practical part of the article.

Thus, considering the evolution of objective techniques in the context of studying and measuring the features of subnational politics, it is necessary to emphasise several generalised points that have historically emerged from the logic of this process:

a) over twenty years there has been a consistent increase in the dimensions` number (from one to two) and indicators (from two to about thirty);
b) a new component appeared – subdimension – the task of which was to detail a specific dimension into various autonomous manifestations of political practice, such as election parameters, term and quantitative power restrictions, determining the quality of the electoral field or outlining opposition and other political actors;
c) increasingly the use of mathematical methods of input data processing (additive and multiplicative ways) and their combination within a single investigation;
d) the use of such methods carried a double sense, in particular as the main form of scientific argumentation of scholars, and as its auxiliary/secondary form, because the measurement interpreted as a methodical part of the overall methodology as a whole.

Today this specificity (connotatively) is common to all institutional techniques that have been tested over a little more than the last decade. And although most of the works that can described as comparative based on an objective measurement, they were not the only ones in the context of the study of territorial phenomena and processes on a subnational scale.

II. Expert (subjective) techniques

The methodical alternative to studying the features of subnational politics within comparative political science represented in the form of subjective (expert) techniques as a qualitatively new view of the spatial and phenomenological variety of reflection of the understanding of territorial politics. In contrast to the objective form, this type is characterised by a slightly different speculative-applied aspect or technical focus. The evaluative and qualified subjective attitude of experts in territorial politics in the form of judgments about different territorial institutions becomes relevant for this way of study. In other words, it is an outline of the situation by experts, how such dimensions – electoral, power and civic – function through their vision. Moreover, they clearly understand the relevant processes and phenomena in a high degree of self-interpretation: this means a comprehensive explanation 'about' these institutions, but not a personification 'on their behalf' (this refers to official statistics (public information) in the context of how subnational political regimes function). After that, input data

is subjected to mathematical formalisation to obtain the results that usually demonstrated in the types of subnational political regime.

Despite well-founded grounds for verification and validity of the consequences of testing subjective techniques, at the end of the second decade of the 21st century the fraction of their implementation (sum of attempts) is significantly inferior to the institutional equivalent. Finally, this is due to several factors:

a) relatively high level of complexity of full realisation of technique independently: from the moment of construction of a design, collection of the primary information to generalisation of all data and formation of conclusions. This is due to the fact that the subjective method is directly dependent on the assistance of subnational experts and, if necessary/possible, groups of field intelligence assistants;
b) illusory/abstract guarantee of the availability of appropriate local experts to survey socio-political processes and phenomena in any territorial unit. There is no good reason to be sure that a required respondent exists at all at the time of the analysis and/or is relevant to such a role;
c) significant duration (time-consuming process) of techniques` phases. Most of the process aimed at obtaining primary data, so with self-collection there is a real probability that a researcher will spend enormous material, time and vital resources, because this type of investigation is focused on analysing a significant number of cases that are not small spatially or territorially. As a consequence, there are objective costs for additional work;
d) practical need (requirement) to master the communicative and psychological skills and conducting sociological surveys. Obviously, any approbation of the expert way determines the use of the tool as an interview, which is a litmus test in defining the potential of the scholar in the context of the implementation of the research form. This means the aspect – field with institutional and communicative dimensions – in which the primary data is obtained. As many investigations demonstrate, not all researchers are able to synthesise appropriate methods of analysis together,[6] so more often they apply them autonomously.

That is why expert techniques in subnational studies are burdensome according to the described points above, but are equally important and necessary for analysing and measuring politics on such a scale. At the same time, focusing on the chronological and quantitative aspects, it should add that politologists began to

6 Very often, this is a problem of lack of time for researchers. Of course, it is possible to acquire relevant knowledge during a scientist's career, but this is not always guaranteed (personal component). This, in the end, may scatter the scientist's potential on technical aspects of study rather than focusing on analysis.

use subjective methods almost simultaneously with the objective counterparts (at the turn of the 20th–21st centuries), but their number is much smaller.

The first paper, which covered an attempt to subjectively measure the level of democracy at the subnational scale for 57 regions of the Russian Federation, was a joint article by American political researcher McMann and Russian geographer Petrov based on expert survey (McMann – Petrov 2000). For them, one of the methodical problems became the issue of selecting people who can be called 'experts in local politics'. Therefore, in order to strengthen the argument concerning such experts, they need to go through a two-tier enrolment system. First, it is a questionnaire on the knowledge of the subnational unit from which each respondent came, and a test for a conceptualised understanding of the concept of 'democracy'. Then, secondly, a selection of experts based on the criteria of belonging or participation in socio-political life of the territorial unit. This knowledge confirmed by one of the following provisions: a) personal experience with a subnational unit; b) personal contact with representatives of the subregion; c) detailed acquaintance with materials concerning the territorial unit; and d) understanding of the subregional situation through the media of an appropriate scale (McMann – Petrov 2000: 164).

If we emphasise about the institutional aspect of territorial politics, or the choice of parameters that was assessed through a group of questions to the subnational experts, these scholars applied the construction of the famous political researcher Dahl to the embodiment of democracy in a Polyarchy through his 'eight guarantees' (McMann – Petrov 2000: 159). This is the case when the technique does not have its own name. Generally, this does not affect anything, but often from it, the conceptual novelty follows that the author presents an idea of the whole approach to the study and measurement of phenomena and processes of territorial politics. After all, an innovation idea has been an essential attribute of subnational research throughout the history of development. As a result, the subjective method depicted a full borrowing of the theoretical model of understanding of the political field (Dahl's point of view) and its direct extrapolation to the subnational level of the Russian Federation with the McMann and Petrov system of input data formalisation (criteria for evaluating answers) and measuring the corresponding scores awarded by them.

Subsequently, McMann independently tested an identical technique to illustrate the comparative context among the subnational units of the Russian Federation – Samara oblast and Ul'ianovsk oblast – and Kyrgyzstan – Osh oblast and Naryn oblast (McMann 2006). In principle, the novelty of the paper was the selection of experts, which included media workers (mostly journalists), public figures and representatives of public authorities. An important part of the investigation was the author's data about subnational legislation, socio-economic and election statistics, and media content analysis. For that reason, such a technique looks representative in the context of reflecting the electoral,

civil and partial power aspects of the institutionalisation of socio-political relations within a territorial unit, and therefore can be tested in a situation for another state and its spatial parts.

The scholar Gervasoni, who with the help of expert judgments conceptualised and determined the degree of democracy in 23 provinces and one federal district of Argentina for the period 2003–2007 (Gervasoni 2008), published another important work. He tested this type of method in his research faster than the objective. It should be noted that it was based on three analytical solutions:

a) definition of the intermediate regime type is carried out within the established limits of conceptualisation through the view of Linz, in which less democratic varieties described as hybrid rather than autocratic;
b) from the measurement point of view, preference is given to subjective parameters aimed at the perception of institutional indicators, because they are more optimal for 'capturing' the various constraints of democracy in hybrid regimes;
c) in the matter of the results reliability, arguments are made about the opinions of subnational politics experts in the number of n>1 per province, which makes it possible to estimate the average indicator of the 'stability' of the data and adjust a low marker of quality to a higher degree (Gervasoni 2008: 2).

The subjective operationalisation (proposed by Gervasoni) formed from numerous surveys of experts on the politics of subnational territorial units. Such 'experts' can be quite adequately considered a solid basis of primary information, because they have input data that determine the differentiated 'points' of institutional limitation in specific definitions, which is, without a doubt, extremely relevant moment. He introduced the so-called 'Survey of Experts on Provincial Politics' (SEPP), in order to outline the regime type in all sub-regions of the whole of Argentina based on appropriate assessments. An ideal respondent for the realisation of this goal, the scholar calls a subnational politically disengaged researcher and professional (journalist and consultant) with deep knowledge of socio-political processes. Along with this, it should be noted that one of the important shortcomings of the technique is a factor of the limitation of human memory in the reproduction of reliable data. This can interpreted through a prism of events that took place quite a long time ago, so it is more difficult to recall/delineate them more clearly and objectively now.

Detailing the structure of the method (its design), Gervasoni reflected it through the combination of successive stages, starting from forming the questionnaire up to realisation (direct collection of primary data), coding and quality control. It should be added that the 'questionnaire' at the core of such a design combined about 150 – open and closed – questions to experts (Gervasoni 2008: 18–21). As he mentioned a duration of the complete technique implementation

is a very relative problem as it depends on many variables, namely: from the size of the team to the number of respondents; from the area of subnational units in the state to the optimal logistic connection between them; from the availability of various resources to the degree of their use, etc. It took more than three months to complete the fieldwork – from 22 April to 30 July 2008. Therefore, it is possible to make sure how this type of method is time-consuming. After all, in addition to the stage of field work, there are also other – shorter in execution, but equally relevant – phases.

To analyse politics at the subnational level, Gervasoni built a genetic model of democracy, which operationalised the construction of a liberal-representative type of regime. If we visualise it quantitatively, we get the following information (Table 1).

Table 1: Quantitative display of structural details of the operational disaggregation of the degree of subnational democracy by Gervasoni

№.	The name of structural part	Number of elements
1	Dimension	2
2	Subdimension	6
3	Indicator	16
4	Subindicator	31
Sum	4	55

(Gervasoni 2008: 16)

Highlighting the process of calculating the input data, the scholar carried out a balanced combination of additive and multiplicative ways, which led to the levelling or partial/severe reduction of the hyperbolisation of the mechanical effect and some errors of progression. Later, already in his dissertation, he used a statistical method – the Pearson correlation coefficient 'r' (Gervasoni 2011).

In general, if we turn to the strengths of the technique, the following features can be noted:

a) deep conceptual foundations and clearly operationalised structure in delineating the degree of democracy at the subnational level;
b) a detailed methodical component of the construction for obtaining input data, their formalisation, processing and generalisation, on the basis of which the 'evaluative' regimes were selected, and therefore there was an opportunity to typologise this set;
c) a system of criteria for selecting respondents for surveys of this type, which are suitable/expedient for recording the full spectrum of features of socio-political existence in such spatial perspective.

In the end, the main advantage of the technique is that any researcher can repeat the investigation of the Argentine political comparativist within the borders of another state with minimal adaptation to the socio-political context at the subnational level. So, the next two examples of techniques, which will be discussed further, are based in one way or another on the research potential of Gervasoni in the process of building an expert method for studying and analysing the politics of territorial units in its subjective measurement.

Mexican researchers Salas and García in a joint article (Salas – García 2018) tested the expert technique on the example of 20 municipalities of the state of San Luis Potosí. They carried out territorial detailing, or a reduction in scale, in order to generalise the set of micro-conclusions into a coherent picture of the entire subnational unit in the country. As a consequence, the purpose of this research is characterised by showing that the electoral dimension (full institutional compliance) is not a direct condition for setting a high degree of democracy. Because the possible situations when the electoral context/field promotes a competitive voting process, which leads to plots of political alternation of the power configuration; however, along with this, there is a complete demonstration of control over various manifestations of municipal mass media.

The investigation represented how journalists reproduce official politics within a subnational political regime at the municipal level through two variables:

a) degree of professionalism of media workers;
b) degree of intervention of public authorities in mass media activities.

Therefore, this technique is grounded on the tool of interviewing journalists, former government officials and key informants, which led to the conclusion of the non-observance of basic civil rights and freedoms in relation to the expression of opinions and the realisation of planned censorship (as an example of indicators from the civil dimension). Thus, an undemocratic structure of political regime was installed in that state of Mexico.

Altogether, the method can analysed through two critical points – positive (a) and negative (b):

a) for the first time in methodical work within the framework of the subnational topic, the criteria for selecting respondents was not actualised from the standpoint of objective separation from the socio-political dimension – obligatory professionalisation and education of the interviewees. Instead, on the contrary, the principle of choice was characterised by a direct appeal to the participants in the reproduction of the official line of power, which simultaneously contributed to the maximum subjectivisation and the largest detail in the delineation of the relevant institutionalised processes and phenomena;
b) first, research scepticism regarding the validity and verification of scientific results was obtained from such respondents. Secondly, the limi-

tation of the analytical focus was obtained, which was a component of the civilian dimension, but did not constitute its representation even in average indicators. Thirdly, any lack of comments regarding the quantitative measurement was obtained, which completely problematised this aspect of the definition, and therefore nullified in part/fully the integrity of the outputs data in relation to the executed political practice de facto.

Such a technique adequately highlighted the situation at the subnational level, where the electoral dimension fully/partially fits into the liberal-representative model of the regime, but turning to other manifestations of institutional functioning – both power and civil – we can observe their autocratic expression. In addition, it should be noted that the design of technique was rather not well developed, both in terms of conceptualisation of structural elements[7] and in the operational aspect, since the 'measurement' based on a qualitative display without quantitative formalisation, which calls into question the final data of the study. In general, this method should rather be chosen exclusively as a part of a complicated technique in the study of the peculiarities of subnational politics, and not an independent tool (at least now), taking into account the modern specifics of the territorial analysis.

One of the latest subnational investigations,[8] in which the application of expert methods is present, is the PhD thesis of another Argentine political researcher (Galeano 2018). He displayed a synthesised measurement of the degree of democracy for all (and selectively for one) municipalities of Salta (province Salta, Argentina), explaining, at the same time, the factors that influenced the overall diversification of institutional indicators between them.

In general, if we talk about the combination of research techniques of subnational political regimes in a reduced perspective,[9] the expert manner tested only for one municipality – General Ballivián. It was a standardised survey of experts in local politics. However, it should be added that the differentiated selection of respondents was an attempt of his innovation: a) some from among pro-government politicians; b) part of the opposition; and c) individuals who represented the public. As a result, the scholar demonstrated all aspects of formal-informal interactions within the institutional discourse. In this context, it is appropriate to recall that Gervasoni was a supervisor for Galeano when

7 Here it means about highlighting the genetic model of democracy and presenting its ontological levels in connection with the practical plane.

8 The article analyses an array of works that are the most important on the chosen topic, but the list is not complete, as the process of development and testing of old and new measurement techniques is still ongoing. Yet, an outlined bibliography will be sufficient to understand the situation.

9 Here it means about the 60 municipalities of the province of Salta. All of them were objectively (institutional) measured through two models, namely: index of *'subnational democracy'* by Gervasoni and *'dichotomous index'* by Alvarez, which reflected such novelty only in the spectrum of another spatial application, because procedurally they duplicated a form that arose almost ten years before.

writing his dissertation. Therefore, such an investigation is based on a subjective way of measurement (as one of the available) of the spatial processes and phenomena. It applied the method to a territorially lower level than the subnational, as if identical extrapolation to it, and certain technological changes were relevant only in the remarks when choosing municipal experts. If we consider the questionnaire, which consisted of open and closed questions, it accumulated problems about the electoral, power and civil dimensions of politics. In other words, its form, like the example of Gervasoni's letterhead, was preserved, but adaptation was made to local conditions of socio-political practice, which is necessary when trying to obtain more specific input data. Consequently, the importance of Galeano's work should be understood through the context of strengthening the justification of his mentor's technique as relatively unified. It is like a 'research denominator' that can be used not only for subnational units of the state, but lower in the spatial perspective, that is, for municipalities or districts.

Today the application of subjective (expert) techniques within the framework of a subnational topic is an ambiguous (but clearly justified) way of studying and measuring different territorial processes and phenomena. On the one hand, they consume a lot of time and resources when implemented in comparison with objective ones. They are difficult to realise, as these methods require not only research potential, but also a set of communicative interaction skills: an ability to cooperate with other people. Secondly, this type of method has become an equivalent alternative for comparativists who are looking for a much broader contextual dimension of the sources of argumentation for understanding, analysing and evaluating (measuring) politics on a subnational scale. Nowadays, as we can see, these researches did not stop exclusively at the subnational level of politics, as they concern the study of municipalities separately and their associations. This shows that both techniques – objective and subjective – are effective and appropriate in implementation in order to obtain output data on the functioning of the socio-political field within the entire state from the perspective of different spatial scales. Although, so far, the subnational level is the most popular in the researchers ` works. In general, despite the fact that in terms of the number of works, expert techniques lose to institutional ones, this does not diminish their scientific importance for political science.

Therefore, as we can see, both measurement techniques of territorial phenomena and processes at the subnational level of politics (all period of their development) became a conceptually versatile and creative movement, which connotatively consisted of constructing the three-dimensional *theory-concept--measurement* model (algorithm). This construction can be characterised as an analytical system that reproduces the advantages of the subnational method in comparative political studies. It combined three elements: a) general theory, which constitutes the discourse (or theoretical background), within which

research is realized; b) concept as an innovative idea that illuminates the development of the phenomenon at the subnational level; c) measurement as a sum of tools, with the help of which formalisation of qualitative and quantitative parameters of socio-political processes in a subnational unit is carried out. The model became the basis for most investigations in the first decade of the 21st century and it still prevails. If the historiographical and methodological aspects of the development of a subnational topic in political science have partially been considered (Gibson – Suárez-Cao 2010; Gervasoni 2018; Hnatiuk 2019a, 2021b; Giraudy – Moncada – Snyder 2019), the issue of methodical interaction of techniques has not been raised in scientific discussions until now. Taking into account the moment that the methods serve to reveal the peculiarities of a holistic phenomenon, such as a territorial unit, but through two sources of input data, in particular – institutional indicators and expert judgments – it seems quite logical to take a step towards their combination within the framework of a single study in order to understand socio-political processes more comprehensively. This can provide interesting analytical conclusions that could not be obtained until now due to the lack of an appropriate approach.

In this part of the article, we have got acquainted with the context of application of measurement techniques through the prism of its historical growth within subnational studies in political science. This was done in order to make sure that the aspect of interaction between them is a new issue for discussion, which is relevant nowadays, given the advantages of such an approach (Gervasoni 2011; Galeano 2018, where this idea is partially implemented). Therefore, further in the text (Part II) we will demonstrate our vision on this point within the methodological and practical (results) dimensions.

Some problems and their solutions during the testing of both techniques

At the beginning of the third decade of the 21st century, in subnational studies, no attention was paid to such an issue as the unification of measurement during the approbation of both methods – institutional and expert. This can be explained by several reasons.

First is the presence of a specific stereotype among comparativists at the stage of implementation of political science research. The fact is, taking into account the entire array of works, a situation has clearly formed today when techniques are distinguished at the analytical and conceptual levels of interpretation. Second is the complexity of such a mathematical procedure, which should be based on the principle of tangibility to both ways of studying and measuring politics at the subnational level, which insists on the commonality of: a) the assessment scale and institutional limits of the dimension of socio and political life; b) unified typology of regimes; and c) the formula by which the output

data will be obtained. It is obvious that the instrumental implementation does not need an identical design at all stages of implementation for each technique, because they are determined by internal factors of formation, but it covers the fundamental moments in the functional plane. These requirements are optimal rather than mandatory, because there remains an 'open space' for scholars to build appropriate schemes outside the context of stereotyping.

Currently it is clear that both methods appear to be maximally dispositional, that is, externally and internally valid during the verification of the output data. This is determined at the primary level, when techniques are separated already on the basis of the source of foundation. Along with this, it is not necessary to deny the present context of commonality (unity), which arises in the process of their application within the framework of one research subject. Therefore, the approbation of techniques forms an institutional dimension, where they are implemented separately or together, but always within the limits of one object of analysis: whether it is a state, a region or a subnational unit. This is justified by the commonality of the subject not only *de facto*, but also in the clarification of time and place, which makes it possible to reveal the identical or different nature of the original data and, thus, opens the discussion of their comparison. Based on this formulation, it becomes possible to complement the autonomous results of each technique into a coherent analytical case, or clarify their research role in the process of studying territorial politics and make a gradation to explain their scientific equality/inequality. Consequently, it is necessary to talk about them through the *spectrum of disposition*, which has been proven during the last decade, but do not forget about *relationism*, which arises due to the aspect of conclusions obtained in the process of parallel approbation of both techniques in relation to the same object of research. The second aspect is scientifically experimental, since there are few works where the simultaneous application of institutional and expert methods was carried out. In total, there are two works where the authors combined both techniques in a single case: Gervasoni in his dissertation (2011) on the political practice of Argentina at the provincial level and Galeano (2018) on the study and measurement of municipal political regimes. In the first work, the feature was that the methods were used for different periods of time, but not in parallel with respect to them. In the second work, the approbation of the techniques was selective: objective for a single case and instead expert – for all municipalities of one province.

I. Methodological part

In this article, an attempt is made to demonstrate the specificity of the correlation between the methods and to understand the nature of this direction: the dimension of *convergence* or the aspect of *divergence*. Finally, the question was raised to what extent their final outputs are intercorrelated on the subject

of identity. It should also be understood that the consequences of correlation cannot be considered through the prism of the unification of other cases in the future, but they are quite capable of becoming a precedent for attempts with a larger number of subnational scale objects.

In general, to explain the issue above, we introduce a special indicator – the *methodical interaction coefficient*, which reflects the degree of convergence or divergence of both techniques of measuring the institutional space of politics at the subnational level. Mathematically it is defined as the formation of half the sum of two fractions, sequential in terms of the time of obtaining quantitative values within the limits of one type of measurement technique. It can be formally shown as follows:[10]

$$K_m = (X^0 + Y^0)/2$$

At the same time, the X^0 and Y^0 indicators are expressed as follows:

$$X^0 = X_n/X_{n+1}$$
$$Y^0 = Y_n/Y_{n+1}$$

All notations in both formulas should be understood as follows: K_m is the methodical interaction coefficient; X^0 is the fraction of successive quantitative values obtained thanks to the institutional technique; X_n is a quantitative value for a specific period of time obtained with the help of an institutional technique; X_{n+1} is the quantitative value for the period of time immediately following X_n and obtained using the institutional technique; Y^0 is the fraction of consecutive quantitative values obtained thanks to the expert technique; Y_n is a quantitative value for a specific period of time obtained with the help of an expert technique; Y_{n+1} is the quantitative value for the time period immediately following Y_n, obtained using the expert technique.

Accordingly, all obtained values will be correlated through the prism of different degrees and their quantitative limits (Table 2).

Table 2: Degrees, limits and value of the coefficient of methodical interaction (authors' elaboration)

№	Degree of correlation	Limits
1	High	0,75–1
2	Medium	0,5–0,75
3	Low	0,25–0,5
4	Absent	0–0,25

10 The authors of the article independently developed this and the following formulas.

The idea of this ratio is new for subnational topic, but comparativists have known the form in which it is expressed for more than a decade. In particular, the Argentinian political scholar Gervasoni in his dissertation used it, where he defined identical numerical limits when showing the Pearson correlation (r) (Gervasoni 2011a). This and the following correlation tables borrow a similar algorithm for their construction.

In addition, in order to confirm or deny the status of the *methodical interaction coefficient*, two clarifying indicators are proposed:

a) the *coefficient of amplification of methodical similarity* is a special indicator that characterises the extent to which the final results are balanced; or to what extent the data obtained in the process of approbation of both techniques are numerically the same. Its calculation depicted as follows:

$$K_s = X^0/Y^0$$

Where K_s is the coefficient of amplification of methodical similarity; X^0 is the fraction of successive quantitative values obtained thanks to the institutional technique; Y^0 is the fraction of consecutive quantitative values obtained thanks to the expert technique.

If we display the correlation of results with relation to quantitative intervals, then it will look like this (Table 3).

Table 3: Degrees, limits and value of the coefficient of amplification of methodical similarity (authors' elaboration)

No.№	Degree of correlation	Limits
1	High	$0,75 < K_s < 1$
2	Medium	$0,5 < K_s < 0,75$
3	Low	$0,25 < K_s < 0,5$
4	Absent	$0 < K_s < 0,25$

Here we come to the conclusion that *the higher the value of the fraction, the greater the linear dependence of the final results*, and therefore the coefficient becomes an additional factor of argumentation in the question of the practical balance of techniques;

b) the *coefficient of the degree of democratisation* is an indicator that demonstrates the institutional rate of development of the phenomenon under analysis – a subnational unit – through the political regime construction. Here, the institutional distance from the positions 'now' to 'previous' in a time retrospective is measured. In general, it should be considered through the following mathematical notation:

$$K_d = Y^0/X^0$$

Where K_d is the coefficient of the degree of democratisation; X^0 is the fraction of successive quantitative values obtained thanks to the institutional technique; Y^0 is the fraction of consecutive quantitative values obtained thanks to the expert technique.

If we refer to the correlation between degrees and limits, will get the following situation (Table 4).

Table 4: Degrees, limits and value of the coefficient of the degree of democratization (authors' elaboration)

No.№	Degree of democratization	Limits
1	Rollback to authoritarianism	$K_d < 1$
2	Low	$1 < K_d < 1{,}25$
3	Medium	$1{,}25 < K_d < 1{,}5$
4	High	$1{,}5 < K_d$

And that is why we already conclude that *the higher the degree of democratisation, the larger (or more significant) 'jump' of various institutional manifestations of the socio-political dimension in the territorial unit as a whole*. On the other hand, if its indicator is lower than 1, this indicates a tendency that can be defined as a rollback to authoritarianism.

In general, for a better understanding of this aspect, we have formed three hypotheses that combine the methodological dimension in terms of the balance of both techniques and the practical dimension of the institutional expression of the functioning of political processes at the subregional level in the country.

The first is related to the issue of methodical interaction and coordination of results between techniques. The wording is as follows: *the more democratic the type of regime defined in the process of approbation of both methods, the closer their nature is to each other.* To begin with, this is due to the fact of the integrity of the information, which is analytically necessary for understanding and quantitative-qualitative measurement, which makes it possible to fully represent the phenomenon of the political regime. Moreover, we note it due to the idea that in an exceptionally more democratic (open) system, the real socio-political situation in subregions is hidden to the smallest degree – thanks to official statistics and/or judgments of experts in local politics *de facto*. As a result, the techniques are consistent with each other and their data are directly proportional with partial numerical deviations, which is normal. In contrast, less democratic (anocratic) or autocratic systems generally symbolise a certain degree of limitation in obtaining some information: ranging from complete inaccessibility to varying restrictions, which shifts the focus of quality to the characteristic of inferiority in general.

The second hypothesis outlines the aspect of the relationship of methods due to the factor of qualitative change, despite the variability of the numerical ranges of subnational regime types. The definition of the hypothesis is as follows: *all 'starting' positions of regime types should optimally coincide within a homogeneous national political regime in terms of time and type between both techniques. Usually the 'final' positions, in this case, converge, because they are also related to each other.* This idea arose from the fact that the method is an exclusive way to obtain a partial, but at the same time autonomous, reflection of the features of a single phenomenon – a subnational unit. And that is why, using either institutional or expert techniques, a socio-political dimension is operationalised with tools that give a comprehensive answer in one way or another, but no more than is methodically able. As a result, it is possible to influence the structure of the analysis and the gradation of formal findings, but in no way on the effectiveness, because we determine 'how' and 'what' to investigate, not the content of the analysis. Accordingly, such a position is based on the assumption that when we agree with the first hypothesis, then the institutional quality (regime type) always coincides, and the quantity (numerical indicators) never do, taking into account the scale of factors that determine the peculiarities of the functioning of political processes at the subregional level.

The idea of the third hypothesis is revealed through democratisation as a procedural-procedural development and is noted as follows: *from among the techniques (institutional and expert) when determining democratisation, preference should be given to the latter, if it does not contradict the first and is based on the authority of experts as real connoisseurs of local politics.* Thus, based on our experience of the conducted research, the results obtained during the approbation of the subjective technique turned out to be dominantly more valuable from the point of view of the description of the final data in relation to socio-political processes on a spatial scale. It should be mentioned that a certain number of aspects, which were usually interpreted as 'non-observance' of indicators, are often more important for the establishment and functioning of a democratic political regime in a territorial unit than was previously believed – before the application of both methods. On the other hand, the formal side of the processes has not lost its importance until now, despite scepticism during the reign of neo-institutionalism in political science (it refers to the influence of informal actors, structures and practices on the manifestations of politics, especially in anocratic and authoritarian regimes, in particular at the subnational level).

In addition, in the methodological context, it is necessary to note such important aspects as the analytical time (period for study), structural features of the techniques and the specifics of data formalisation, which is unified for both techniques. In particular, by 'analytical time' we cover the specific period from the moment of the current election campaign to the beginning of the next election cycle in the accumulative perspective through a single year as a date.

Therefore, for 2010 and 2015 (our years of study), such consideration is a reflection of the results of the whole period in terms of analysis. In other words, they are outcome years that show the characteristics of political processes at the subregional level through the construction of a subnational political regime.

Further, focusing on the structure of each technique, we have generalised all their components into the *'index of subnational democracy'* (ISD). The framework of institutional method includes nine markers: index of electoral competitiveness, index of voter turnout, index of electoral transparency, index of civil society development, index of succession control, index of term limit, index of effective number of parties, index of ideological diversity and index of confrontational power. On the other hand, the expert technique includes such thematic blocks as governmental, social, electoral, corruption and professionalism, economic, problematic and expert position (the latter two are nonevaluative, but equally important in the analysis of factors affecting the functioning of processes in the subregion). Thus, the ISD is a general matrix that measures the institutional degree of democracy of a territorial unit through the implementation of each methodic separately, as is common in modern research. But, at the same time, it is an integration factor for both techniques. That is, despite the difference in tools, their goal is common – to analyse the object and measure its certain qualities. So, we supplement the point above by the context of correlation of the outcomes obtained in different ways about the units of the state in order to clarify the nature of the link between them. The algorithm for the implementation of the techniques consists in a comparative analysis of all their components – indices and blocks – first for each territorial unit in turn for two years, and then – among themselves in order to generalise the results (Hnatiuk 2021a: 103–126).

The aspect of processing of primary data and their formalisation to a unified basis is characterised by the following specifics. We obtain the number – x – as the total value of the subnational political regime in terms of compliance or non-compliance with institutional conditions within all indices, each of which is formed additively. As a result, the expression (see below formula 1) for the calculation will look like this (relevant only for the objective technique):

$$\Sigma_x = I_n + I_{n+1} + I_{n+2} + I_{n+3} + I_{n+4} + I_{n+5} + I_{n+6} + I_{n+7} + I_{n+8}$$

Where I_n is the numerical amount obtained as a result of calculating the indicators of a particular index within the framework of compliance or non-compliance with the conditions; n is the number of the index of the method, the value of which can vary between $1 \leq n \leq 9$. Accordingly, the next step is to calculate a numerical expression of the type of subnational political regime – S, i.e., the one that is unified to a linear value on the typology scale. This procedure (see below formula 2) is defined as follows:

$$S = \frac{(x - (max - min))}{1{,}6} - 10$$

Where x is the total formalised number of the subnational political regime in terms of compliance or non-compliance with institutional conditions within all indices, which varies as $32 \leq x \leq 64$; min ($32 \leq$) and max (≤ 64) are the numerical boundaries where this typology of regimes in the subnational scale occurs across the spectrum from autocracy to democracy.

Then we correlate the obtained number to the scale, the values of which will fluctuate within [–10; +10], and the corresponding type of regime (Table 5). The numerical value of the institutional matrix for a particular type of regime was chosen as four points, which is due to the already existing positive experience of testing in comparative political science, such as the Polity IV Project (see Marshall – Gurr – Jaggers 2016), and our vision of the expediency of such quantitative division for regimes in such proportions.

Table 5: Correlation correspondence between types and numerical values of subnational political regimes

№.	Type of subnational political regime	Numerical value
1	Autocratic	[-10 ; -6]
2	Approximately autocratic	[-5,99 ; -2]
3	Anocratic/Hybrid	[-1,99 ; 2]
4	Approximately democratic	[2,01 ; 6]
5	Democratic	[6,01 ; 10]

(authors' elaboration based on the work of Marshall – Gurr – Jaggers 2016)

Instead, when we apply the expert method (relevant only for it), the number x is obtained additively as the total value of the subnational political regime, which is formalised on the basis of compliance or non-compliance with the institutional conditions of each thematic block. The algorithm of mathematical operations is to add together all the values assigned to one or another expert's answer to the question in the questionnaire (for more details about it and its structure, see Hnatiuk 2021a: 294–302). All primary data are received through a graded assessment of phenomena and processes by a local policy expert. In total, there were seven experts for each territorial unit. In order to harmonise the data obtained from them, one of the types of averaging was used – harmonic mean, which, along with the arithmetic mean and statistical mode, provided the most accurate values. And then the final value is calculated according to the formula used in objective measurement (see formula 2). These results must then be correlated

with the number and type of regime on the identical scale (see Table 5) that we defined earlier. After that, it is possible to carry out a comparative analysis, both for an alternate pair of years within a technique and for the output results between techniques. In general, our task was to create a common numerical 'shell' for both techniques – the range [–10; +10] – and a single way to formalise the data (see formula 2) to obtain unified values. Instead, the choice of evaluation to one or another structural component of the method – a dimension, indicator or condition – is free for scholars. This provides much wider opportunities for research and opens up its innovative aspect, despite the fact that it causes some internal uncontrolled variability of content (as opposed to form). However, this approach should be assessed and defined as constructive, which brings us closer to the 'denominator' common to both tools. This context contributed to the opening of our discussion on the issue of correlation of their output data. Thus, it is necessary, foremost, to note about ambivalence, reflecting the nature of correlations between methods. It should be understood that the techniques are maximally dispositional and are outlined as two autonomous ways to study socio-political processes through the prism of functioning on a subnational scale. In addition, they can be considered as two independent positions within the understanding of one/several objects of analysis. Therefore, the status of correlation varies from complementarity to opposition of final results and conclusions based on them. As a consequence, it is worth noting that the type of linkages, nature of directions (convergence or divergence) and appropriateness of the correlation become an exceptional matter of each unique case. Sometimes they may demonstrate institutional similarities, but this is not a reason to assert the unification of techniques among themselves, but rather a feature that actualises their potential for a certain degree of correlation. However, without appropriate attempts, researchers will not be able to answer this question – in a negative or positive sense. That is why we are launching such an effort to understand the nature of the problem, which will definitely contribute to the expansion of the discussion on this topic.

II. Results

In order to understand whether the methodological part works in practice, we analysed three cases – the Transcarpathian, Lviv and Chernivtsi territorial units – that took place in Ukraine between 2010 and 2015. Such a set is due to both the commonality of their historical and political development over a long period of time in different/unified state formations (Rzeczpospolita and Austria-Hungary), which forms a common discourse of institutional evolution, and the geographical proximity of the territorial space, which contributes to the improved quality of results in comparative studies, their validity – as stated in Tobler's first law of geography (Tobler 1970: 236). It

says that 'everything is related to everything else, but near things are more related than distant things,'

In general, the results of the study after testing the objective technique gave the following data for the specified period of time (Table 6). We can highlight the following points:

Table 6: Type of subnational regime and its numerical value obtained through the objective technique for territorial units in 2010 and 2015

№.	Name of subnational unit	Value for		Type of subnational regime for	
		2010 р№	2015 р№	2010	2015
1	Transcarpathian	5	4,375	Approximately democratic	Approximately democratic
2	Lviv	4,375	6,875	Approximately democratic	Democratic
3	Chernivtsi	5,625	8,125	Approximately democratic	Democratic

(authors' elaboration)

a) in the Transcarpathian unit, the functioning of socio-political processes within the subnational political regime was characterised by institutional stagnation. First, for the numerical values of the subregion, Δ–0.625 was obtained, that is, a reverse to authoritarian structures and practices in the public dimension. Secondly, there was a rather underdeveloped network of NGOs in monitoring events of socio-political importance and there was no proper control over the formation and activities of the power configuration. Therefore, Transcarpathia as a system at the subnational level was marked by the parallel presence of real competition and competitiveness in the electoral process, but complemented by the passivity of the public sector, which did not become a factor of pressure 'from below' as a condition for democratisation of other dimensions. This influenced the establishment of a type of regime – approximately democratic – with average institutional numbers;

b) the functioning of processes at the subregional level in Lviv territorial unit accumulated interspecific specifics in the construction of the regime, as in 2010 it was approximately democratic, and in 2015 – already democratic. This transformation is due to the factors of the electoral and power dimension. Firstly, the replacement of the dominance of one party with a two-and-a-half party system in the subregion council and increased competition in there, which will directly lead to the renewal of the party form in the future to a multi-party system. Second, there was a high level of ideological diversification and confrontational power in the representative body between the main actors, which additionally de-

termined constructive changes. Finally, the community has become a key factor in who chooses and forms the composition of political actors that carry out the governance process in the territorial unit, implementing the collective interests of elites, electorate and any other social groups. This contributed to the institutional improvement of indicators and fixation of the democratic type of regime in the lower part of the numerical range;

c) the Chernivtsi subregion recorded the highest rates of institutional transformation, and the pace of development should be defined as intensive, because only it was characterised by such a degree of change from one type to another. Bukovyna, the historical name of the Chernivtsi subnational unit, is characterised by the social branching of NGOs and their effective activity (slightly lower than in the Lviv unit) and competitive surroundings during the electoral process in building the power configuration. As a result, due to the reconfiguration of the party system to a multi-party system, as well as the long-awaited change in the mayor of Chernivtsi, important changes in the democratisation of the following issues have been achieved: alternative political course of the subregion's development; possibility of realising other group interests than those that existed in the elite circle of the old bureaucracy; coverage of the electoral process as competitive or outlining a political communication 'mayor-legislative council' more transparently. Changes in the electoral-power dimension have led to the installation of a polyarchical mode of ruling, and the subnational political regime was defined as democratic with average indicators in the range of type values (for more details see Hnatiuk 2019b).

Instead, if we analyse the data obtained after applying another technique – the expert, we will see the following situation (Table 7). This can be explained as follows:

Table 7: Type of subnational regime and its numerical value obtained through the subjective technique for territorial units in 2010 and 2015

№.	Name of subnational unit	Value for		Type of subnational regime for	
		2010 р№	2015 р№	2010	2015
1	Transcarpathian	0,28	2,72	Anocratic/Hybrid	Approximately democratic
2	Lviv	3,65	5,15	Approximately democratic	Approximately democratic
3	Chernivtsi	4,12	5,61	Approximately democratic	Approximately democratic

(authors' elaboration)

a) democratic vector of development has become the determining (dominant) in terms of functioning of the processes of socio-political dimension, but in varying degrees of intensity: in Transcarpathia it was the lowest, in Lviv – above average and in Bukovyna – high;
b) the Transcarpathian territorial unit was initially characterised by the type of subnational political regime as anocratic, and then it was changed to approximately democratic. However, it is appropriate to generalise this process as rigid to transformations within the democratic institutional orientation, since the transition to another type was symbolic or superficial – in its lower numerical range;
c) the Lviv unit has established an approximately democratic type of subnational political regime with average indicators in its numerical range. They have improved quantitatively (reached the upper limit of the range), but not enough to appear qualitatively – the type has not changed in 2015. However, the potential for change (Δ+1.5) to a higher level – democratic – was recorded[11];
d) the Chernivtsi unit has formed an approximately democratic type of subnational political regime with higher than average indicators in the numerical range, which in 2015 increased even more and reached the upper limit. The pace of transformation was on par with the Lviv unit, but was characterised by the highest institutional potential in the transition to a democratic type of all three cases;
e) the complexity of all the problems for subnational political regimes was based on the continuation of the basic points established in 2010. Therefore, the emphasis was again demonstrated on the power-bureaucratic issue for the Transcarpathian subregion, the 'triangle' of socio-politics-business in the Lviv subregion and the political-communication issue for Bukovyna (for more details see Hnatiuk 2019c, 2020).

Thus, the demonstration of the *methodological interaction coefficient* based on examples of the functioning of socio-political processes at the subnational level of Ukraine in Transcarpathian, Lviv and Chernivtsi regions for the period 2010–2015 was as follows (Table 8).[12]

11 The fact is that although the difference between 2010 and 2015 was smaller than in the Transcarpathian unit, but its location in the numerical range – average and then higher – contributes to the qualitative change more. Because here the tendency to roll back to authoritarianism is much less real.

12 This and the following two data tables are based on numerical values from Tables 6 and 7.

Table 8: The value of the methodical interaction coefficient for each territorial unit based on the results of the approbation of both types of techniques

№.	Name of subnational unit	X^o	Y^o	K_m
1	Transcarpathian	1,14	0,10	0,62
2	Lviv	0,64	0,71	0,68
3	Chernivtsi	0,69	0,73	0,71

(authors' elaboration)

Referring to the data above, the indicators of which are extrapolated to numerical limits, it can be noted that the average degree of correlation in the range [0.62; 0.71]. This indicates two relevant aspects:

a) presence of a common cluster for three cases, which is important from the point of view of the relevance of the initial results and their repetition through the research algorithm;
b) emergence of some doubt (as a secondary effect regarding point *a*), which appeared after the obtained results, because, if we generalise and correlate the institutional transformations for each region autonomously, we will notice that they were marked by a division into two groups: the Lviv region and Bukovyna with institutionally higher and Transcarpathia with institutionally lower indicators.

At the same time, if we consider the data obtained thanks to two clarifying indicators (coefficients), and then highlight the following features. Thereof formalisation of the coefficient of amplification of methodical similarity outlined the situation as follows (Table 9).

Table 9: The value of the coefficient of amplification of methodical similarity for each territorial unit based on the results of the approbation of both types of techniques

№.	Name of subnational unit	X^o	Y^o	K_s
1	Transcarpathian	1,14	0,10	11,4
2	Lviv	0,64	0,71	0,90
3	Chernivtsi	0,69	0,73	0,95

(authors' elaboration)

Their interpretation can be reduced to such statements:

a) Lviv and Chernivtsi units are characterised by a high degree of data correlation [0.75; 1] within the framework of the proximity of both tech-

niques, which showed a strong consistency of both formal indicators of the socio-political dimension (nine indices) and expert judgments about social and power processes (twenty evaluative questions of the questionnaire);

b) in the Transcarpathian region, the situation became diametrically opposite and was determined by the following points:
   1) through the contextlessness, given the numerical limits that belonged to different degrees of correlation within the coefficient, and therefore the lack of possibility in the interpretation extrapolated to the measurement of point *a*;
   2) methodical confrontation of 'objective' versus 'subjective', which was displayed by effectiveness with 'movement towards autocracy', that is, a clear mismatch of 'starting' positions for each analytical situation. And, therefore, the need for mathematical representation, in particular as $(K_s)^{-1}$, or 0.09 (rounded to hundredths), which means the absence of any degree of correlation, given the relevant data.

As a consequence, we once again confirm the thesis that the higher the value of the fraction, the greater the linear dependence of the final results from the techniques. Thus, it becomes an additional factor of argumentation in the question of the practical balance (or not) of both methods. And if this idea was confirmed for the Lviv and Chernivtsi subregions, then it was not for the Transcarpathia. The example of the latter territorial unit represents a context where the techniques are dispositional to the extent that the conclusions obtained by both ways are different, and therefore the problem of relativity does not arise, since there is no reason for this. However, the other two cases demonstrated that the correlation exists and is sufficiently strong. On the one hand, this proves that the unification of the results of the outputs data is a scientifically complex (currently unrealistic) issue in terms of its solution. But, on the other hand, the unification is possible if it is carried out within narrower institutional limits. However, then it should be a generalisation based on a set of cases that represent the development of the phenomenon selectively, and this shifts the research emphasis away from detailing the functioning of the analysis object to specific (but not all) structural components.

The formalisation of the *coefficient of the degree of democratisation* data presented such specifics for the considered subnational units (Table 10).

Table 10: The value of the coefficient of the degree of democratization for each territorial unit based on the results of the approbation of both types of techniques

№.	Name of subnational unit	X^o	Y^o	K_d
1	Transcarpathian	1,14	0,10	0,09
2	Lviv	0,64	0,71	1,11
3	Chernivtsi	0,69	0,73	1,06

(authors' elaboration)

Their explanation is characterised by the fact that:

a) the Lviv and Chernivtsi subregions (appearing as an analytical cluster) are defined by a low level of democratisation, which is due, largely, to the effect of the functioning of an approximately democratic regime type and the dominance factor (≈57 %) of the relevant expert judgments. In other words, the very type of subnational political regime has not changed, and therefore, based on the idea of institutional transformation, for which there is an immediate need for qualitative change (transition to democracy), the process was minimal in manifestations;
b) in Transcarpathia, the process was determined by a tendency towards authoritarian rollback, because it is displayed by the lowest indicator and minimum value in general, which should be interpreted, in the democratic discourse, as weak. At the same time, from the position of the regime, the emphasis was on a clearly anocratic type of politics – with more authoritarian particle than democratic (this type can be called authoritarian-democratic. Instead, it's opposite within the framework of autocracy is democratic-authoritarian).

And that is why we can assert the following here: that the higher the degree of democratisation, the larger (more significant) 'jump' of various institutional manifestations of the socio-political dimension in territorial units as a whole. Both examples (Lviv and Chernivtsi units) showed that minimal institutional changes are native to those politico-territorial systems where the institutional dimension of the functioning of socio-political processes is in the range with indicators higher than average, and, hereupon, are located close to democracy, which (usually) does not involve deep transformations with an intensive degree of democratisation. Yet, Transcarpathia demonstrated a special tendency, when the low degree of democratisation is a consequence of weak structural changes in the institutional dimension and, therefore, a manifestation of minimal transformations in the socio-political dimension, which ultimately influenced the regime designation as anocratic.

In general, our results show that the hypotheses defined in the methodological part are confirmed in practice of three cases. And considering them, we understand why the examples of Lviv and Chernivtsi subnational units demonstrated significantly stronger/higher institutional indicators of development in practice and a more reflected picture of the subregions in terms of informativeness. On the other hand, in the Transcarpathia the institutional dimension of the functioning of various processes was not transparent for coverage, which affected the above-mentioned data, which, it is difficult to understand from which side – objective or subjective – were characterised by lack of information. Therefore, for some units (Lviv and Chernivtsi), the methodical interaction of techniques is higher, and the coordination of their results is closer to each other, and for the other (Transcarpathian) – this is not the case, because such interaction is lower (although it is also present), but the coherence is expressed through the difference in the conclusions obtained by each of the techniques. They do not so much complement each other as oppose, creating contradictions.

Moreover, this directly influenced the next consequence of the interaction, as the second hypothesis was fully confirmed in practice also only for two cases – Lviv and Chernivtsi units. Although it should be noted that there was some balance in the final conclusions within the expert method. We emphasise the context 'some', because the choice of experts was different in determining the type of regime for the Transcarpathian unit in 2015. In particular, one part of the experts in local politics believed that it should be anocratic (the type did not change), but the majority of respondents defined it as approximately democratic. The ratio of opinions was 2 : 5 (Table 7 shows the type chosen by the majority). It is on the basis of this point that we built further conclusions. As a result, for an approximately democratic type of regime, the numerical values for 2015 in the Transcarpathian, Lviv and Chernivtsi subregions were different, but in the measurement of a single plane. Here we should explain the moment that follows from this situation. Generally speaking, an approximately democratic type of regime as a construct is, in our understanding, an intermediate institutional link between hybrid and democratic regimes. Moreover, it is a type that in its structure and practices is qualitatively close to democracy, but has not yet reached it: a regime is in the process of realising this goal or on the path of authoritarian rollback and transition to anocracy/autocracy. In some ways it can be identified with a semi-democratic type of regime, but at the same time it should be distinguished from anocracy, which is very important. Because anocracy is institutionally 'backward' in relation to an approximately democratic type of regime. Thus, we can note that the interaction of the final data in Lviv and Chernivtsi regions was synchronous, and in Transcarpathia – their asynchrony was observed, where the subregion tended to an approximately democratic type of regime by institutional technique, and to anocratic (29 %) and approximately democratic (71 %) by expert. If we characterise the

two groups of cases procedurally, then for the Lviv unit and Bukovyna it was expressed by convergent linearity, and for Transcarpathian unit by divergent.

In general, for all subnational units (in the context of the results related to the confirmation of the third hypothesis), which demonstrated significantly more democratic development trends, such as the Lviv and Chernivtsi territorial units, it should be noted about the average methodical interaction, but there was a high degree of correlation of results and their consistency with each other. At the same time, there is a low level of democratisation, which was noted earlier. The example of both subregions has highlighted the side of the analytical situation when both statistical data (formal data of various kinds within the socio-political dimension) and expert judgments (the majority) contributed to the delineation of an identical type of subnational political regime.

Instead, for the Transcarpathian region, the results within the correlation became an expression of the synchronous difference between the techniques. The institutional method provided data on the position with an approximately democratic type of regime, on the one hand, and the expert method – the position with an anocratic and approximately democratic regime (with low numerical range), on the other. However, both of them signaled a minimal (low) degree of democratisation. In general, the case illustrated that there are often situations for which it is too early to put a '=' sign between the techniques of study, because each of them is within the limited framework of data acquisition, and therefore in a certain incomplete way to reproduce the complexity of the socio-political dimension at the level of the subregion. Therefore, it is appropriate to consider that it is better to resort to the '+' sign, when these half sums can, in the end, both quantitatively and qualitatively form a political portrait of a territorial unit additively, but not yet autonomously. Then any methodical unification in these cases is out of the question.

Conclusions

Hence, we are convinced that the influence on the reflection, interpretation and measurement of institutional processes in spatial consideration becomes equally important for the comprehensive description of subnational state policy through the approbation of both methods. Each of them obviously has strengths and weaknesses, and therefore parallel application allows for the justification of institutional development at the subregional level thanks to two positions in a single case. Among the main problems in the implementation of this goal, it is necessary to highlight a structural issue. It is characterised by the fact that the researcher needs to demonstrate the measurement of socio-political phenomena and processes through the institutional construction of the political regime, which will be expressed through statistical data and judgments from experts. For this purpose, indexes and thematic blocks are used, which combine a spe-

cific (one of the existing) institutional context on which a scholar's attention is focused, in particular: electoral process, power configuration, civil sector and others. The choice of indicators and their location is a free interpretation of the scientist. Since until now there are no clear criteria in investigations of territorial politics in terms of the number of factors, the degree of their correlation with each other, their evaluation position and amount at all, that reflects the completeness of the information about the analysed phenomena and processes. We think this implementation lies in the context of Hoertz's (2006) idea of matching the concept and its measurement tool, which may sound like this: to express the phenomenon in a holistic view, one should choose such a number of parameters that will not burden with unnecessary details, but will translate a basic set of characteristics that are sufficient for understanding. Just based on the described context, two methods were built, the values of which could vary in a common range, and the calculation was carried out using a single formula. Moreover, both indices and thematic blocks are relatively balanced/equal in points, but not identical. Our mathematical formulation was an experimental attempt in the process of manifestation of the institutional dimension of the functioning of political phenomena at the territorial level of Ukraine on the example of the cases of the Transcarpathian, Lviv and Chernivtsi territorial units in 2010–2015 using objective and subjective methods.

Today, based on the obtained (albeit not very numerical) results, it is clear that the problem of correlation of techniques and their quantitative indicators is open for scholars. It promotes extensive processing of output data, which means variations in the search for other ties between values according to different degrees of interaction. It is obvious that unification is not mentioned then, but rather a certain generalisation regarding cases of horizontal representation. However, the key point here is the actualisation process of the issue of correlation of final results after comprehensive measurement in political science – the focus of attention on its nature of origin. It is caused by *the analytical necessity* for scientists to understand where the boundaries of the research search end and whether one of the selected techniques is sufficient to delineate the specificity of the object. If so, then we stand on the position of maximum disposition of measurement methods and there is no methodical contradiction. But if not, then the scholar immediately faces the need to supplement, detail, clarify, check the specific measurements of the object analysis, which consists in the implementation of both techniques in time and methodical frameworks, and therefore the correlation of the outputs will be noted by default as clear option. On the other hand, the situation described above can be considered as *a consequence* of the evolution of political researchers` views through the subnational topic history, its issues and discourse. Thus, the idea is that if at first objective and subjective techniques conceived exclusively as autonomous tools for study, but later (now) this point is supplemented by the dialectical interdependence of these

tools used within the framework of a single case. As demonstrated by modern historiography in the last two decades of the 21st century comparativists from different countries of the world partially represented the algorithm, where they combined them within the scope of one investigation.

Hence, all thoughts about the primacy of the discussion about the correlation of measurement methods as *a necessity* or *a consequence* of scientific research are caused by the complexity of the problem and the side from which it is considered. The logical step is not so much the solution of this issue, as the situation surrounding the outputs obtained by both techniques and their status – convergence or divergence. It is important to understand this in order to more objectively highlight the peculiarities of the subnational level of politics in future studies. Along with this, a much wider sample of the analysed cases is needed to solve this question in order to generalise these data, and therefore demonstrate conclusions regarding a quantitatively larger set of research objects. At the same time, the forecast for their receipt has a rather positive trend and can be expected in the near future, given the flourishing of the topic within the framework of political science.

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