RENEWING AN ECONOMIC POLICY FOR A RISING UKRAINIAN REGION: SMOOTHING DISCRETE SHIFTS AND MASTERING NEW COMPETENCIES

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Abstract
The article develops a methodology for applying the competence-based approach to use on a sub-national level in order to determine points of growth of a regional economy. A proprietary meta-model is proposed that links ‘to-do tasks’ for regional public authorities with essential competences. It also contains some methodological conclusions with the modernization strategy of a regional economic policy on the example of modern Ukraine, which is designed due to comparing an existing approach and approach modernized. Departed from the modernization meta-model and strongly relying on discreteness (discontinuity) as the natural property of any modernization, the authors substantiate the mechanism for overcoming undesirable discrete shifts during the modernization. Then, the relevant methods and forms of international centers of competence for the responsible development of a limited number of necessary competencies are discussed. A national network of competence centers is proposed as an optimal and sustainable way to run those centers in the future. Generally all findings were originated according a methodology on desk research, data collection and fresh expert survey of Ukrainian stakeholders.

Keywords: smart growth, regional economic policy, public policy, competencies, competence-based approach, modernization, Ukraine, mechanism
JEL classification: O38, R58, R50

1. Introduction
This paper aims to explore the relationship between the sustainability of modernization changes in regional policy and some necessary competencies peculiar to a region and its regional governance system. This article is not an exhaustive document with any ultimate conclusions, but it carries our attempt to bind some specific qualities of a region to management actions required. Our key assumption is that the application of a competence-based approach can be applied both at the corporate level (where it was originated 40 years ago from) and at sub-national public governance level and sector, which is undergoing the greatest changes and is a very interesting area for research today.
What remains understudied is which obstacles to modernize a sub-national policies (Ertugal, 2018; Muller, 2015; Calliois, 2018; Latypova, 2015)? What competencies are needed the most to ensure regional power to self-developing (Nells et al., 2018; Agnew, 2013)? Do regional authorities need instrumental beacons additionally to political ones (Clarke, 2017; Ansel & Gash, 2009)?

To engage with these issues, this paper examines the substance of sub-national economic public policy that purports to be smarter, more sustainable and more flexible. But is it possible all together at once? We recognize that many European regions have long gone this stage by, but perhaps none of them will be able to offer a universal recipe, addressing it for Ukrainian colleagues too. But it doesn’t mean that now is the time to “reinvent the wheel” and get experienced researcher back through a few decades. Although, up-rising challenges of globalization, low fertility of the indigenous population, migration, growing discontent and low confidence in many national authorities etc. are being deposited one on the other, and jointly create a difficult predictable mix. No one knows a strong recipe how to do now. But solutions are already being invented on-the-way by both developed and developing regions and countries. There are no doomed countries in big Europe, but there is a high uncertainty for all. That is why we offer and examine a not very popular view on problem solving with the competence-based approach inside. Naturally, dealing with a modernization trajectory for each specific region is regularly set by the frames of national strategies. In particular for Ukraine’s case, this is the National Strategy for Regional Development of Ukraine till 2020 and its similar strategy-newcomer on 2021-2027 years that is already being drafted. In this respect, an important prerequisite for the modernization transfer is the competence-based approach and, respectively, a methodology for forming the core competences of a region.

Generally, this article has a solid theoretical and methodological tendency and is designed in logics as follows: started from general international universality it passed to specific of a growing Ukrainian region, and then concluded to multinational universality applicable to numerous developing countries or metropolitan regions that have their ambitions for smart growth but constrained in external investments in.

The paper is structured as follows. The next section outlines six key specific definitions crucial for understanding a general logics and context. The third section briefly encompasses the methodology. The forth section discusses the obtained propositions and theoretical results and their importance in explaining new shape of a regional economic policy. The fifth section discusses main findings and their broader implication.

2. Definitions of notions

To define the key notions, the authors use key terms in the following meanings (Dunayev, 2017a):

– by modernization, a ‘growing capacity for social transformations’ (Roxborough, 1998) is meant;

– by a regional economic policy, we mean a public socio-economic policy of multilevel development of a region and its territorial communities which includes a system of integrated and coordinated plans and actions of local development actors that is aimed to reduce internal economic inefficiency and social inequality (Dunayev, 2017b);

– by modernization of regional economic policy, we understood “progressive and guided social transformations of complex public-administrative and economic relations at the regional and interregional levels that manifest themselves differently, depending on the system of values and priorities under specific historical conditions” (Dunayev, 2017b);

– by regional core competence is a set of rather unique competitive advantages of a region that can not be duplicated precisely by any other regions and assuring its sustainable higher positions (Vinnik, 2014: p. 29);

– by a governance mechanism, we mean a means of solving contradictions in a phenomenon or a process;

– by a mechanism for prevention and overcoming discrete shifts, is meant a social governance mechanism. By its nature, this mechanism is seemed as social, even if additionally comparing it with some analogies, e.g. social stabilization and correction
mechanisms (Smelser, 1965; Coser & Rosenberg, 1957), mechanisms for coordinating actions (Habermas, 1981) etc.

3. Methodology

Since the early 1990s, some concepts of strategic management of the 1970s-1980s have been shifted by the resource-based view (RBV). While traditional concepts were concentrated on external environment for a company, the resource theory reflected opposing views and focuses on studying strengths and weaknesses of a company, as well as searching for core competencies and company’s merits to reshape its competitive advantage better. Actually, the RBV is never considered as something revolutionary due to being based on classic works (D. Ricardo, E. Penrose, J. Schumpeter), as well as papers on corporate strategy (K. Andrews, A. Chandler, Ch. Snow, Cyert & March (Cyert & March, 1963) etc.). At that time the RBV was quickly spreading, and in the 1990s it’s reshaped in a new direction of the strategic management theory (Vinnik, 2014: p. 26). Besides others, the Wernerfelt’s conclusion is considered important claiming that traditional organization’s analysis would benefitting much in terms of resources rather than products (Wernerfelt, 1984), and then his assumption that this approach could be an independent paradigm in the theory of strategic management. According to the RBV, resources, dynamic abilities, and core competencies are considered as the basic concepts for analysis.

Generally, a competence is defined as “a range of issues within someone’s cognizance; a scope of someone’s authority, jurisdiction” (Ozhegov, 1990), or “proficiency at something; a range of powers of an organization, institution, person” (Yaremenko & Slipushko, 2006). C. Prahalad and G. Hamel were the first to introduce core competences as the notion, defining it as “specialized collective knowledge of an organization, aimed to coordinate different-type production skills and integrate multiple technological flows” (Prahalad & Hamel, 1990, 1996). The core competences are different from competences in that they are: typical only of those entities, whose indices exceed the average level; distinguished by their uniqueness; characterized by complexity making them hard to pattern after; associated with satisfaction of customer (target group) needs; beneficial in raising a product value more than other competences.

Although the competency-based approach was born for professional education and then also transmitted to organizational management in mid. 1970-s, in last decade it’s believed as widely spread in policy analysis and new public management (Shafir, 2012; Coe Regan, 2016; CoaARC, 2012; Berman&West, 2008; de Lancer Jules & Holzer, 2001 etc.). Moreover, according to the Camagni’s approach (Camagni, 2002), a region can also be regarded as a ‘quasi-corporation’ with some qualities of an economic organization i.e. a large entity taking part in competition for markets of commodities, services and capital. And by analogy to the competitive capacity of an industry or economy, a region’s leading position can be achieved due to competitive strengths of its constituent elements, conditions for their efficient interaction, and the capability of a region to provide for its own sustainable and dynamic development, while maintaining high and stable living standards of its population.

Based on this, we consider appropriate to apply those provisions of the RBV theory and the core competencies concept to the regional economy and regional policy. And, if traditional resource theory is losing its relevance to a company within modern market conditions due to more influential external environment and global competition, then in relation to a regional system, internal sources impacts the most, appealing to competitive advantages of a higher order. Indeed, transferring core competencies on the sub-national level, core competences can be effectively applied only on the basis of regional specialization and priorities determined by a local public consensus. For example, in present-day EU, the core competences of regions are completely related to the chosen ‘smart specialization’; for a case of Ukraine, this choice is quite probable in a much longer perspective. In view of this, we deem it possible to apply the concepts of the resource-based theory and the concept of competences to modernization of a regional economic policy (hereinafter - REP) of Ukrainian regions. While under the current market conditions the resource-based theory becomes irrelevant for an organization due to a change of emphasis and the determining impact of the external environment on the organization’s competitive efficiency (Latynin & Lukashov,
2017), in the case of regional systems, the major influence is exerted by internal sources i.e. competitive advantages of higher order.

One of the methodological features of this paper is that it generally relies on a methodology on desk research, data collection and interviews to Ukrainian stakeholders. So some theme-related conclusions were done upon an original expert survey "Determining the ability of regional economic policy Ukraine to change" were held by the co-author (Igor Dunayev) independently and for his own funds. This survey was continuing in 2017 and has embraced 44 leading experts from 14 regions of Ukraine and Kyiv city. It was conducted anonymously in online-mode via specially designed questionnaires in Google Form encompassing 43 complex questions, and containing both open-ended and 1. The survey did not provide a responder with possibility to correct his/her answers when they completed a questionnaire. The questionnaire was included four questions for the overall presentation of the expert (region, professional work area, education, and gender) and main theme-relevant 43 questions on the subject theme severely.

4. Results

As noted above, the general methodological framework of this study was supplemented by an authentic all-Ukrainian expert survey (as mentioned in the section above). As some selective results prove (see Appendix A), the most important ways of how to improve regional governance are:

- establishing a system of comprehensive analysis and forecasting of blocking and destructive influences and factors in all manifestations in a regional socio-economic policy;
- establishing determined conditions and criteria for optimal modernization of a regional economic policy, as well as developing some measures to mobilize own regional potential, especially economic potential;
- overcoming financial and mental dependence on external sources avoiding disparity and non-mutual benefits.

In modern Ukraine, an understanding of what is regional economic policy should to be oriented at is becoming more clear and clear (Dunayev, 2019). It's about wider use of competitive advantages in some specific areas, coordinating regional strategies with sectoral strategies, mitigating market failures through effective resource redistribution. But it's possible only if cardinal institutions modernization and growth of human capital, in particular, in public administration would occur.

These items enable us to summarize the possibilities of how to adopt organizationally the competence-based approach to renovate a regional economic policy in Ukraine, as follows:

- the competence-based approach reflects the main aspects of the process of modernizing a REP through a more active involvement of life-long learning systems, upgrading of skills, and correct behavior;
- the competence-based approach manifests itself in renewed knowledge, public-administrative and economic know-how under the country’s changing socio-economic situation;
- the competence-based approach is a prerequisite to act efficiently in a factual surroundings;
- applying the competence-based approach requires a set of methods and technologies oriented to create conditions for achieving success, forming and strengthening potential for changes, and developing proper thinking.

1 More expanded sociological results arisen from this expert survey are available from Igor Dunayev’s post-doctoral thesis (in Ukrainian) and some published papers (Dunayev, 2018; Dunayev, 2017b).
In order to evaluate the quality of mastering core competences and their effective application in implementing a regional innovation strategy, it is necessary to have a complex competence evaluation method. For this purpose, it is expedient:

- to design a framework management meta-model on the basis of the competence-based approach that would take into account the specific features of a desired trajectory of a particular region’s development, in the first place, availability and quality of human potential and the main regional strengths;
- to create a set of simulation exercises, which would make it possible to observe acquiring of the desired competences by modernization process participants, enhance their involvement and lower their psychological stress;
- to provide an effective system for monitoring and control of the processes of knowledge transfer to regional managers and their acquiring of competences, with recording of behavioral indicators to obtain an adequate summative evaluation of the achieved level of core competences in the region.

Guided by a need of modernization regional development in recent Ukraine, a meta-model of enhancement of core competences to renovate a regional economic policy titled “A Modernization Region” (Figure 1) is proposed. This authentic meta-model was designed on the basis of the Ukrainian Strategy for Regional Development till 2020 and the Ukrainian Energetic Strategy till 2035 (Ministry of energy and coal industry of Ukraine, 2017), with regard to strategic view and logical transition in regional modernization (Dunayev, 2017b: 217-218) (See Appendix C). To our opinion, it includes baseline competences pertaining to the four basic elements of the modernization system, as public administration, economy, space, and institutions. We underline that these system-based elements are crucial for further reshaping a methodological basis.

**Figure 1. “A Modernization Region” meta-model designed by using the competence-based approach.**

<table>
<thead>
<tr>
<th>Reference tasks for regional public authorities according to the elements of the system for modernization of a regional economic policy</th>
<th>Core competences required of a regional governance system</th>
<th>Desired business competences of change leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modernized ‘public administration’ (MPA)</td>
<td>C&lt;sub&gt;mpa1&lt;/sub&gt; “Openness to new technological and market know-hows”</td>
<td>Strategic thinking, persistence, political support from a team, managing competences of subordinates and structures, management of consistency</td>
</tr>
<tr>
<td>Setting regional priorities, standards and interaction procedures</td>
<td>C&lt;sub&gt;mpa2&lt;/sub&gt; “Capacity for value-based targeting”</td>
<td></td>
</tr>
<tr>
<td>Renovating regional system for training project manager staff and reserve</td>
<td>C&lt;sub&gt;mpa3&lt;/sub&gt; “Availability of highly-qualified management staff”</td>
<td></td>
</tr>
<tr>
<td>Changing approach from rules and regulations to dialogue-vision-planning</td>
<td>C&lt;sub&gt;mpa4&lt;/sub&gt; “Capacity for providing weighty incentives and output bonuses”</td>
<td></td>
</tr>
<tr>
<td>Focusing public policy on facilitation of processes for individuals and businesses</td>
<td>C&lt;sub&gt;mpa5&lt;/sub&gt; “Capacity for de-blocking changes due to formal and informal institutions”</td>
<td></td>
</tr>
<tr>
<td>Balancing between state regulation and provision of sufficient implementation standards</td>
<td></td>
<td></td>
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<tr>
<td>Integrating regional elites</td>
<td></td>
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<tr>
<td>Introducing result-oriented management practices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complementing state and regional programs without overlapping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modernized ‘economy’ (ME)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiation and selection of large projects</td>
<td>C&lt;sub&gt;me1&lt;/sub&gt; “Multichannel and flexible project co-financing”</td>
<td>Business reputation, support for business communities, combining project and process approaches to management, capacity for long-standing motivation by own example</td>
</tr>
<tr>
<td>Facilitation of access to external resources for business</td>
<td>C&lt;sub&gt;me2&lt;/sub&gt; “Trust in a state partner under public-private partnership”</td>
<td></td>
</tr>
<tr>
<td>Coordination of access to external resources for business</td>
<td>C&lt;sub&gt;me3&lt;/sub&gt; “Streamlined procedures of public-private partnership and risk-taking by the state partner”</td>
<td></td>
</tr>
<tr>
<td>Coordination of relations between the government and local industries</td>
<td>C&lt;sub&gt;me4&lt;/sub&gt; “Well-prepared investment projects and industrial sites are available”</td>
<td></td>
</tr>
<tr>
<td>Interregional economic cooperation of a region and communities</td>
<td>C&lt;sub&gt;me5&lt;/sub&gt; “International integration of local business and openness to new technologies”</td>
<td></td>
</tr>
<tr>
<td>Effective and transparent management of available property and finances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diversification of sources for funding priorities</td>
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<td></td>
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<tr>
<td>Initial co-financing of local infrastructure</td>
<td></td>
<td></td>
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<tr>
<td>Modernized ‘space’ (MS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encouragement of communities to make their own plans and programs</td>
<td>$C_{\text{MS1}}$ “Formed functional ties between territories in Ukraine”</td>
<td></td>
</tr>
<tr>
<td>Resource support for communities’ local priorities</td>
<td>$C_{\text{MS2}}$ “Skills for combining internal assets with external possibilities”</td>
<td></td>
</tr>
<tr>
<td>Unified approaches and equal possibilities for all internal communities and small cities</td>
<td>$C_{\text{MS3}}$ “Overcoming spatial inertia by responsiveness to innovations”</td>
<td></td>
</tr>
<tr>
<td>“More for more”: different-level relations with different communities based on their needs</td>
<td>$C_{\text{MS4}}$ “Efficiency of international efforts of local communities”</td>
<td></td>
</tr>
<tr>
<td>Promoting integration of incomers and labor migrants into local communities</td>
<td>$C_{\text{MS5}}$ “Ability to socialize and integrate arrived people without losing regional identity”</td>
<td></td>
</tr>
<tr>
<td>Modernized ‘institutions’ (MI)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delegating part of authority and resources</td>
<td>$C_{\text{MI1}}$ “Initiative for changes”</td>
<td></td>
</tr>
<tr>
<td>Developing and implementing a policy of group leadership</td>
<td>$C_{\text{MI2}}$ “Capacity for identifying economic agent groups, advancing demands for new institutions, and integrating them”</td>
<td></td>
</tr>
<tr>
<td>Promoting integration of a region and communities into international environment</td>
<td>$C_{\text{MI3}}$ “Elaborated processes of considering institutions’ complimentary nature”</td>
<td></td>
</tr>
<tr>
<td>Developing relations on the basis of the modern relationship culture</td>
<td>$C_{\text{MI4}}$ “Developed transparent rules of controlling known rules of the game”</td>
<td></td>
</tr>
<tr>
<td>Consolidating leadership potential of stakeholder groups</td>
<td>$C_{\text{MI5}}$ “Capacity of institutions for changes”</td>
<td></td>
</tr>
<tr>
<td>Coordinating behavior and representing shared values</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Igor Dunayev’s findings.

It’s natural to consider modernization through these system-based elements. So, for each of the elements, 5 sufficient minimum competences are proposed. These proposed competences are supposed to undergo a certain transformation during the REP renovation in Ukrainian growing regions. Further adjustments of a regional administrative system to acquire proposed competences will be possible due to communications and cooperation between national, regional, and local authorities with other stakeholders and related subjects only.

Considering such expected capacities as flexibility, coordination, inclusiveness (as figures A-3 & A-4 in the Annex A prove), we can propose to regard effectiveness as a main criterion for competence optimality of a modernized regional management system.

Taking into account the drafted “A Modernization Region” meta-model (See Figure 1), the next step will require drafting and description of a mechanism for prevention and overcoming discrete shifts from a trajectory under regional economic policy modernization using the competence-based approach.

Logically, this mechanism follows from a catch-up modernization’ property as an objective phenomenon (See Figure 2 below), and can be presented as an aggregate of stages, desired competences, conditions and risks of managing modernization during the formation of a modernized REP. It functions with due regard to: available resources (material, human, financial, information etc.); the impact of central, regional, and municipal authorities, civil institutions; a direct participation of diverse business and expert organizations and international partners, including donors and foundations. An expected outcome of the mechanism’s functioning can be moving along the trajectory with minimal deviations as well.
as growing resource efficiency of regional development due to improvement of labor productivity through application of competences acquired during modernization development.

**Figure 2. Discreteness in an abstract modernization process**

If the competence-based approach is considered to be applied, so some specific features of the mechanism would be: (a) identification of competences necessary to form the policy and strategy of a region’s modernization development; (b) using the necessary competences to develop, implement, and evaluate the policy; and (c) determining a set of competences to create the meta-model of “A Modernization Region”.

The process of developing the mechanism for overcoming discrete shifts in modernization of the REP with the use of the competence-based approach may include:

- clarification of the purpose and specific tasks of forming a strategy for modernization development of a region;
- a comprehensive analysis of the current internal environment of a region (resources, problems, target groups and stakeholders, interdependencies);
- determining conditions, factors, and resources for strategic modernization development of a region;
- a detailed elaboration of the structure of the mechanism for overcoming discrete shifts in modernization of a REP with specification of its elements;
- defining stages of forming a strategy for modernization development of a region with identification of the necessary competences for each stage;
- specification of available and desired competences of the key participants of the modernization process;
- description of functional and institutional interrelations within the mechanism;
- planning of expected results of the mechanism’s operation with account of the acquired competences.

The stages of the mechanism for overcoming discrete shifts in modernization of a REP are given in the figure (See Appendix B). Within the mechanism, the expected results are defined in the form of institutional competences of the authorities and non-governmental participants of a REP modernization, as well as risks, “lines of stress”, and key resources for acquiring the necessary competences. As a result of the mechanism’s operation, these characteristics change which is presented in Figure 2: achievement of an objective; fulfillment of the task of raising the development efficiency; a system of measures for modernization development; change of economic, political, etc. factors and the external environment; and the acquired competences and creation of the meta-model “A Modernization Region” (Dunayev, 2017c). As Appendix B proves, some necessary actions are identified for each stage of this
mechanism, as well as desired competences of the subjects of REP modernization are determined. The process of their regulation is decentralized (according to the author’s model of coordinated self-development of a region) and is based on a network, in particular – horizontal, cooperation of its participants. The backbone of that cooperation is a network of ‘centers of modernization competences’ in regions, which comprises various educational and non-governmental business, public, and expert organizations. Acquiring desired competences determines the final outcome of the mechanism’s functioning: promotion of sustainable modernization movement along the chosen trajectory avoiding discrete shifts.

It is a clear-cut justification of structural priorities, identified through the ‘reasonable specialization’ of a region as well, rather than non-organizational perturbation related to clusters without estimated resource that will make a key factor of success of regional development in general, allowing each specific region to develop over a long term. We deem it necessary (although insufficient) to create yet more of regional development agencies and other structures, with partially overlapping functions of administrations and leading business associations, and the same functions being performed by the same personnel, as there are no other cadres in a region. Organizational changes take time and require establishment of a new structure, that is why it is expedient to use the elaborated functions of analyzing a region and preparing development programs (with the work coordinated by means of the proposed model of a region’s ‘guided self-development’). For this purpose, it is suggested to start the analytical work on substantiation of regions’ specialization, development of cooperation ties within the framework of cooperation development models which would strengthen the mutual positions of regions and not the positions of recipient regions only, without reaping equal benefits in return. As a consequence, a new model of productive force allocation in the territory of Ukraine will need to take into account both the national tasks of development, management, maintenance and protection of territories (economic and spatial components of the REP modernization), and possibilities for interaction and joint private business development (public-administrative and institutional components).

5. Discussion

A review of the modern specialized literature (EGTA, 2017; Miller et al, 2012; Shraer & Latypova, 2013) enables us to make a conclusion that at the stage of forming the mechanisms for modernization of a REP, a conditional region will need to have a new type of network organizational structures – centers of competences, instead of conventional regional development agencies. In case of the centers’ success under a rapid dissemination of knowledge, their most useful evolitional variety will be ‘clusters of competences’.

Centers of competences are organizational structures of enterprises, more rarely – of regions, designed to expand experts’ cooperation in order to create favorable conditions for exchange of useful information, and as a result – to conduct assessment, benchmarking and monitoring of the most important areas of activity by gathering knowledge and finding ways to apply it to the maximum effect. In fact, knowledge and processes are integrated through regulated access of the interested persons to information resources and provision of effective communication. Within the centers of competences typology, the following four types are differentiated: a) centers aimed to collect the best experience, find and systemize the most effective practices; b) centers aimed to develop technological standards, standardization of individual operating procedures; c) centers designed to service various projects and initiatives, related to knowledge management; d) centers oriented to provide a general integration of processes and sharing of knowledge within an organization. Although in most cases the centers of competences are branch-specific, providing services in information technologies, audit, consulting, engineering and other fields (Latypova, 2015), they can also be built by the territorial principle of participants’ interaction. The Center for technological competences within the techno-park zone of Saint-Petersburg can be an example. Although St. Petersburg model is more similar to a branch cluster than a traditional center of competences, however this model is quite acceptable, since terminologically there is no final consensus among the concerned parties. With regard to the available environmental and infrastructural problems in the districts of Kharkiv region, it is deemed requisite to propose creating centers of engineering competences, focusing on industrialization of small cities and solution of environmental problems of sewage purification, for instance, by the European technology of...
electrochemical synthesis “iMETland” (iMETland, 2017). In this case, a suitable example could be the small town of Pervomaiskyi (in Kharkiv region, North-East of Ukraine), with its long-term project of step-by-step creation of an industrial park on the basis of an integral complex of facilities of the former chemical plant. However, there exists a functional risk of assigning new functions to centers for competences and their positioning as ‘specialized service centers’ with an emphasis on the prestige of trades, leaving scientific research competences disregarded.

In this context an important and promising task for regional authorities, apart from establishing centers of modernization competences (or other organizational forms of new knowledge concentration and innovations), is formation of ‘clusters of competences’. It is these non-rigid organizational structures that can provide a cumulative effect from generation of innovations due to combining heterogeneous knowledge, skills, abilities, responsibility and decision-making readiness of all the process participants. It is particularly true under the conditions of social demand for a greater economic self-sufficiency of regions and the anticipated administrative and territorial reform in Ukraine. Against the background of the Ukrainian interregional cooperation, organizational units of lower level and smaller in size are more likely to be inefficient. Since foreign investors are usually more interested in specific business platforms and predictability of legal regulation of economic management (Worldbank, 2017a, 2017b), the domestic entrepreneurs are liable to be concerned in specific local projects of a high rate of return and a regular level of transactional (corruption) risks which failed to bring about a progressive renovation of economic management and governance in Ukraine in the past, too. In these circumstances, it is reasonable to regard ‘clusters of competences’ as a certain aggregation of diverse interrelated skills and capacities of individual specialists to be used for fulfillment of common social tasks under the renovation of public governance and new industrialization in Ukraine.

In order to introduce the mechanism more effectively, we propose to develop the main provisions and set up a network of centers of modernization competences covering both a conditional region and interregional cooperation. Local subjects of this network, when interacting, will popularize the necessary competences at the local level and, which is more important, consolidate them with respect to sustainable renovation of a public REP. The subjects in question should include non-profit and non-governmental organizations: the leading universities with their specialized laboratories; business and social associations, incorporating legal persons; and regional and local development agencies, which under Art. 19 of the Law (Parliament of Ukraine, 2015) have acquired the relevant status.

The network of centers of modernization competences is designed to collect, create and disseminate advanced technological knowledge and new management practices. These centers act as communicators, integrators of positive local initiative and a kind of a ‘mediate’ between science and business, with account of each region’s specificity, but essentially without affecting the regional political agenda.

Unlike regional development agencies, centers of competences should not necessarily be established at the initiative of a regional council or regional public administration; neither should they be separated as a non-profit organization or claim the status of a single official regional institution providing regional development through a broad scope of work – from training and creating incentives for investment in a region to support start-ups and search for investor aftercare.

It is proposed to form a network of centers of modernization competences in three stages:

1) Searching for teams and leaders who are potentially capable of organizing a network activity in the field of their professional and scientific interests and competences. A search for innovative ideas and leaders is carried out by way of holding open recruitment examinations, contests of breakthrough projects, head-hunting, temporary integration of applicant resume databases of the national (e.g. recruitment to newly established directorates of some ministries beginning from 2017 (Ukrainian crisis media-center, 2017) and regional levels, etc. For acceleration of modernization processes, several centers should be created in a region, despite competition among them.

2) Getting teams and leaders involved in joint activity by holding sessions, collaborative project planning and implementation.
3) Cooperation of teams and leaders – to jointly draw up a long-term program for developing a network of centers of competences, formalize collaboration relations, and promote program realization (Dunayev, 2017).

Establishment of the network of centers will make it possible to better prepare, and most significantly, link “the growing points” in public administration and local project management by key areas or in accordance with a region’s reasonable specialization, and, respectively, by the regions of Ukraine. It is especially topical in relation to quality formalization of local investment initiative – from generation of an idea to preparing a pre-project documentation.

From the onset, creation of this kind of a network of centers of modernization competences should be a concern of regional bodies of authority: regional councils and regional administrations. However, their establishment should be financed jointly from different-level budgets: regional, national (the State Fund for Regional Development of Ukraine), that of local non-governmental sector, and by external donors. It is proposed to support the network through creating a common infrastructure for the work of all the network centers, performing the following functions:

- working out of an information and communication platform, designed to promote the development of a society of stakeholders who are interested in developing regionally specified competences and desired capacities due to establishment of communicative environment, educational web portal, and a distributed knowledge database;
- development and spreading of basic training courses in the field of international finances, systemic engineering, regional governance systems;
- promoting an open knowledge base;
- arrangement of internships for network center participants to be trained in innovation projects abroad and in Ukraine (transfer of knowledge);
- organization and holding of international schools on the selected topics (transfer of knowledge);
- encouragement of mutual integration, scientific and engineering projects of centers of competences.

At the initial stage, customers of the new type of knowledge and competences can be local middle-size and big business (aided by NGOs and business associations); in the long term, the pool of customers is sure to grow.

As early as 2019, the initiative can also be presented as a joint project of regional authorities to receive co-financing from the State Fund for Regional Development of Ukraine. In case the initiative is presented in the form of a project, its uniqueness will consist in its orientation to fulfill long-term tasks of the regional or even national scale: creating institutions and developing individuals who will become change agents, making a R&D of a new generation in practical integration of management, education, and business, providing real incentives and promising forms of young people’s employment, without having to look for opportunities in a foreign land. Therefore, the goal of the project can be creation within two years of a network integrating ten centers of competences and selection by regional consensus of desired capacities.

6. Conclusion

1) However, one should confess that applying the competence-based approach at the sub-national level is still based on some important assumptions. Longing for quick image benefits among voters and foreign partners, a regional government can easily apply some activities those proposed in this article. But it will be far from the due concentration of efforts and responsibility to enable quantity grows into quality as it’s stated in a universal dialectics rule. So, as a simple toolkit for tracking progress, the article proposes applying the trajectory of modernization changes, that is fed by actual data come from expert surveys and consensus forecasts for the implementation of to-do tasks.
2) Since in practice many deviations from a given modernization course are caused by a lack of flexibility and lack of necessary competencies (in human capital, in a regional governance system), so a relevant competent-based approach is considered to mitigate these risks. It involves designing some logical links between to-do tasks for local authorities and demanded competencies of a regional governance system, desirable business competencies and leaders of change, the stage of achieving the necessary institutional competencies by the subjects of modernization. Regional centers of modernization competency and subsequently their networks are become an important element in Ukraine recently.

3) Some recommendations as to introduction of the mechanism for overcoming discrete shifts from the set trajectory under a regional economic policy modernization with account of the competence-based approach are given below:
   a) preparatory and planning actions unit:
      – to conduct analysis of the internal and external environment of a region and give a clear substantiation of the identified structural priorities that will form the image of a regional economy and, consequently, the regional economic policy of the future;
      – to start an open expert dialogue about determining ‘reasonable specialization’ of a specific region on the lines of the European experience;
      – to determine a project group of experts who possess a set of the necessary competences to design and implement an effective strategy for modernization development of a region;
      – to provide training of a project group with the aim of developing a capacity for spreading of the necessary competences in regional environments;
      – to draw a plan and allocate resources for gaining international experience and implementation of the European programs of inter-municipal cooperation within the framework of common projects and in the sphere of transfer of technologies into the Ukrainian infrastructural projects of public-private partnership. An example of such programs is the actual non-governmental international European Green Technology Alliance (European Green Technology Alliance, 2017) with the appropriate bases of the best technologies and access to funds on preferable credit terms and on the basis of co-investment in Ukraine (started from September 1, 2017);

   b) resource-providing actions unit:
      – to describe the arrangement of the necessary institutional transformations and changes in the regulatory developmental framework of a region, in particular – ‘project offices’ and the regional fund of funds for co-financing of capital-consuming projects;
      – to identify the priorities of regional development, hence, determining in a consensus manner the key modernization competences;
      – relying on the above, to form a regional center(s) of modernization competences in a conditional region;
      – to develop stages of the mechanism introduction, describing the sequence actions to form a regional modernization development strategy;
      – to establish a set of interactions among the elements of the mechanism for overcoming discrete shifts with regard to the competence-based approach;

   c) executive and monitoring actions unit:
      – to pilot and adjust procedures of joint project implementation by international consortia of co-executives, as well as practices of applying and mastering systemic interdisciplinary competences;
      – to generate due in-coming and out-coming information flows;
      – to test the mechanism for creating an effective model of regional modernization development;
      – to specify the results of project groups introduction and work in regions, in particular those results, which are common to different groups and international partners;
      – to draw a road map and make an ultimate management decision as to introduction of the mechanism for overcoming discrete shifts with the competence-based approach into activity of a specific region;
      – to organize work monitoring;
      – to provide inter-municipal programming of activities according to the
“Modernization Region” model.
4) Finally, the paper proposes a suitable for modern Ukraine substantiation of a way of securing and developing essential competences in a Ukrainian region. The ways of reshaping a coordinated network of regional centers of modernization competencies are presented, which, unlike typical regional development agencies with a wide range of functions, will be able to concentrate resources to get advanced at least one required competence. It is considered that they would be able for networking and taking a broad target audience in, and then to evolve to ‘clusters of competencies’.

7. References
– Also available: http://support.sas.com/publishing/pubcat/chaps/61067.pdf (last accessed October 10, 2017)

ACKNOWLEDGMENTS

This paper is benefited from useful suggestions made by anonymous referees as well as Igor Lysenko and Dr. Iya Degtyareva (both Ukraine). The authors also thank conference participants and European discussants at the “Sapere Aude” (Stockholm, 2018) and Kharkiv regional institute of public administration (Kharkiv, Ukraine, 2017), as well as Kyiv- and Kharkiv-based experts and discussants while drafting strategic documents for the regional administration in 2017.

DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

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APPENDICES

Appendix A

Figure A-1. Distribution of respondents' answers to the question: “What parameters of a recent Ukrainian regional economic policy and strategy are most likely to be improved?”, in %

- a) openness in solution formulation: 38.6%
- b) consistency in the decision execution: 34.1%
- c) project scale: 29.5%
- d) preparedness of concrete projects: 50.0%
- e) reinforcement by necessary regulations & normative acts: 9.1%
- f) ability to use better own regional potential: 50.0%
- g) openness to gain & imply better experience: 13.6%
- h) international inclusion & cooperation: 34.1%
- i) political resistance: 15.9%
- j) pragmatism: 22.7%
- k) other: 0.0%

Figure A-2. Distribution of respondents' answers on assessing some actual qualities of effective governance owned by present-day regional state administrations and regional councils in Ukraine, in %
Figure A-3. Distribution of the experts' answers to the question "Which promising institutions can improve the ability of the regional community and authorities to more effectively maintain the desired trajectory in economic change? (up to 3 options could be chosen)

- a) appropriate strategies & development programmes: 63.6%
- b) detailed rules & procedures: 34.1%
- c) accountability & public openness: 29.5%
- d) clear areas of responsibility: 54.5%
- e) new centres & agencies as programme generators: 36.4%
- f) financial incentives for performers: 22.7%
- g) standing for new "rules of a game": 13.6%
- h) contractual relations & networking of public authorities: 25.0%

Figure A-4. Distribution of respondents' answers regarding the best tools can be used to improve coherence and consistency in some changes in the regional economic policy and strategy, in %.

- a) rather due to elements of a state regional policy, since the regions themselves are not capable to do it: 27.3%
- b) theoretical model of changes that has been worked out: 27.3%
- c) initiating some significant projects together with project management: 46.5%
- d) broader management by values: 15.9%
- e) regulations & procedures are worked out: 20.5%
- f) benchmarking & adoption of best practices from abroad: 18.2%
- g) expert & advisory participation of business and public representatives: 29.5%
- h) evolutionary "self-learning" of some involved parties ("attempts and errors"): 15.9%
Appendix C
The logics of a modernization strategy of a regional economic policy

<table>
<thead>
<tr>
<th>Main problem spheres</th>
<th>Existing approach</th>
<th>Approach modernized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target setting</td>
<td>The primacy of institutional goal-setting with elements of problem orientation and level-level consistency prevails. Lacking the clear logic of achieving goals</td>
<td>A transition towards value-setting guided by the interests of the local community and the state. Awakening of the interests of different groups for large-scale tasks</td>
</tr>
<tr>
<td>Dominants of the regional economic policy</td>
<td>It exists in the course of the recent governmental regional policy; it combines aligning &amp; stimulation through financial redistribution between the regions-entities &amp; applying competitive approach too. Own economic initiatives of the regions are poorly presented</td>
<td>Reshaping of institutional, legal, organizational &amp; economic conditions for coordinated self-development of Ukrainian regions in economic, spatial, environmental and social spheres</td>
</tr>
<tr>
<td>A method of interaction between public authorities and proper tools applied</td>
<td>Inflexible interaction of authorities during implementing the regional economic policy</td>
<td>A coordinated system of regional public governance due to a balance of economic interests, long-term strategies and inter-sectoral integrated projects inspired by the interests of all levels</td>
</tr>
<tr>
<td>Regional spatial disproportions solving</td>
<td>Inability to resolve existing spatial problems due to regular methods &amp; state-owned resources. A blurriness of attention between various sectoral policies and an ulterior impact. Spot tactics with no strategic approach</td>
<td>Shaping some functional relationships between areas. Mobilizing local assets &amp; knowledge, and then combining them with external capabilities</td>
</tr>
<tr>
<td>Regulatory and legal support</td>
<td>It predominantly exists in the recent state regional policy. An obligatory vertical integration of development goals at different levels through strategies has been implied. Initiatives of the regions are mostly fragmented and one-sided.</td>
<td>It motivates regional authorities to more consistent and purposeful normative legal acts &amp; managerial decisions. Applying integrated and versatile development programs with significant coverage</td>
</tr>
<tr>
<td>Complimentary nature &amp; integration of regional development documents</td>
<td>It exists from the national level &amp; lower, sub-national &amp; municipal ones</td>
<td>More enforcing existing practices due to joint initiatives on networking through functional augmentability and common interest</td>
</tr>
<tr>
<td>Financial resources</td>
<td>Using specialized structural funds from the national budget and regional budgets’ funds that were increased substantially due to decentralization reform</td>
<td>More enlarging some recent gains through applying additional channels of extra-budget co-financing, investment activity liberalization and own tax base expansion.</td>
</tr>
</tbody>
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