

BUSINESS EXECUTIVES' EVALUATION OF THE IMPACT OF LOCAL AUTHORITIES' REGULATIONS ON THE LOCAL BUSINESS ENVIRONMENT*

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Abstract

This paper investigates the relationship between the regulation of the local economy by local policy-makers and the appropriateness of local economic conditions for firms to compete nationally and internationally. We statistically analyzed the answers provided directly by the managers of 67 medium and large companies operating in Romania and found that regulation of the local economy is positively and significantly associated with the right local conditions for productivity ($r = 0.548$), innovation ($r = 0.667$), cluster formation ($r = 0.574$) and local competition ($r = 0.760$). Specifically, locations and cities where business executives reported better scores for private sector involvement in regulation, supporting export industries and specialized regulation also reported better scores for finding appropriate local conditions. Even so, 50% to 60% of business executives reported that their local economy is not regulated as it should be for their companies to be productive and innovative. Consequently, we propose various recommendations for local public policies.

The research is important for both theory and practice of public administration, contributing with empirical evidence on improving aspects of local or urban economies for existing firms to increase their competitiveness for operating in national or international business contexts. Local policymakers find in this paper the specific aspects they should improve to stimulate local economic development by building microeconomic competitiveness.

Keywords: urban competitiveness, local authorities, local business environment regulation, regional clusters, local competition.

1. Introduction

Regional science, regional and urban economics, urban planning and development or public administration are fields of research in which various issues related to the economic development of locations and cities have been discussed over time. From a historical perspective, regional scholars and geographers were concerned with studying classic regional phenomena such as localization of industries and firms (Hotelling, 1929; Weber, 1929), factors of production mobilization across regions (Hoover and Giarratani, 2020; Rickard, 2020) or ensuring regional equilibrium and political stability (Alesina *et al.*, 1996). Recently, scholars have devoted their attention to studying modern spatial issues like regional resilience (Martin and Sunley, 2015; Pascariu *et al.*, 2021; Sutton and Arku, 2022; Kitsos, Grabner and Carrascal-Incera, 2023), regional competitiveness (Bogdanski, 2012; Borozan, 2008; Clipa and Ifrim, 2016; Kitson, Martin and Tyler, 2004), the development of smart cities (Boc, 2022; Denis *et al.*, 2021; Hollands, 2015; Masik, Sagan and Scott, 2021), or the presence and development of industrial clusters in the local or urban economy (Gordon and Kourtit, 2020; König, 2023; Kosfeld and Mitze, 2023).

Specifically, in the field of public administration there is an increasingly dedicated interest in studying local or urban social phenomena in two related streams of research: (1) the development of smart cities; and (2) the administration of public sector organizations and institutions. For example, Boc (2022), Denis *et al.* (2021), Hollands (2015), Masik, Sagan and Scott (2021) discuss in detail and propose solutions for the main challenges that smart cities will face in the future. Furthermore, Guenduez and Mergel (2022) describe the managerial capabilities and the readiness of public organizations for smart city administration. On the administration of the public institutions side, Profiroiu and Negoită (2022) address, from a historical perspective, the directions and objectives for the transformation of public administration institutions. Other researchers are concerned with understanding public administration aspects such as the quality of government (Balaguer-Coll *et al.*, 2022), recruitment, promotion, and dismissal of civil servants based on political criteria (Radu and Radu, 2023), or innovation in the public sector (Lee, Butler and Jeong, 2023). Researchers have also associated these aspects of the administration of public institutions with various types of local or urban performances.

Even though there is growing interest among researchers and scholars in the study of regional or urban issues (Chen and Schintler, 2023), there is a shortage in the existing literature that we address in this paper. As far as we know, the consideration of firms in the field of public administration, especially in terms of the development and implementation of local public policies to build microeconomic competitiveness is quite limited. In fact, business managers in our study directly reported low scores for considering their firm's operational needs to be internationally competitive when public institutions develop local public policies. Thus, in this paper, we will investigate the relationship between regulation of local economies by public institutions and the suitability of local conditions for businesses. In summary, we will provide an answer to the following research question: 'How do managers of medium and large companies view the regulation of their local economy by

local authorities?’ We will investigate this research question relying on evidence provided directly from within the firms, by business managers of 67 medium and large manufacturing companies operating in Romania.

From a competition-orientation view of economic development, we are going to develop our theoretical argumentation based on a relatively new theory of Local Economic Development (LED). The main idea is that for a location or city to achieve above-average economic or social performances, it should build what the proponents have conceptualized as ‘microeconomic competitiveness’ (Delgado *et al.*, 2012; Porter, 2014). Accordingly, a location or city is competitive, in terms of above-average economic and social performances, only, if in the local economy, there are companies and firms capable of successfully competing with other companies from outside the region (Lehene, Jaradat and Nistor, 2024; Porter, 2003, 2014). Therefore, our approach places existing firms and companies (especially exporting firms) at the center of attention and their needs to compete internationally when local decision makers develop local public policies.

The remainder of the paper is structured as follows. First, we elaborate on existing studies of LED by building microeconomic competitiveness and we set out the hypotheses of the study. Next, we present the research methodology we implemented in this paper followed by the analysis of the empirical data. In the last sections, the implications for public policy and the main conclusions are presented.

2. Literature review

2.1. Local economic development by building microeconomic competitiveness

Regional economics as a discipline belonging to regional science is concerned with the study of regions, cities and locations from an economic and business perspective (Chen and Schintler, 2023). Regional economists emphasize the importance of considering space and geography for LED (Constantin, 2004; Fujita and Krugman, 2004; Hoover and Giarratani, 2020; Krugman, 1991). Over time, regional scholars and geographers come up with different theories, models and approaches to explain the economic development of locations and cities.

For example, classic works such as those of Alfred Weber in the 1930s and August Losch in the 1940s emphasized the importance of the presence of firms in the local economy for stimulating LED (Dawkins, 2003; Weber, 1929). For their part, traditional neoclassical scholars gave primary importance to the endowment with factors of production and productivity, focusing attention on the importance of developing supply capacity to stimulate LED (Sousa, 2010). In contrast, Keynesian scholars assumed that economic development is largely demand driven, emphasizing the importance of the demand and export sector for economic development (North, 1956; Tiebout, 1956). Another stream of researchers postulated as key determinants of LED the polarizing effects that leading regions exert on lagging regions (core-periphery theory), suggesting the importance of concentrating effort on a few growth poles (growth pole theory) or growth points (central place theory)

(Dawkins, 2003; Sousa, 2010). Instead of focusing exclusively on labor and capital accumulation or on exogenous factors such as demand, recent advances in economic geography have highlighted the importance of agglomeration and cumulative causality for increasing returns of regional and local investments (Balland *et al.*, 2019; Fujita and Krugman, 2004; Krugman, 1991).

Building on existing theories and models of regional economic development, a relatively new theory was proposed at Harvard Business School by Michael Porter and collaborators. This theory focuses on existing exporting firms and creating a Local Business Environment (LBE) to improve firms' productivity to compete successfully with other firms outside the region. Specifically, the theory emphasizes the importance of boosting local exports and supporting exporting industries and firms (Delgado *et al.*, 2012; Porter, 2003, 2014). For a location or city to achieve above-average economic and social performances (1) there should be successful exporting firms in the local economy; and (2) existing exporting companies must encounter a LBE that enables them to be productive. Otherwise, it will be nearly impossible to achieve higher wages or simply improve the quality of life for residents (Lehene, Jaradat and Nistor, 2024). Thus, this theory proposes building microeconomic competitiveness for above-average economic or social performances (Porter, 2014). A recent revision of this theory is provided by Lehene, Jaradat and Nistor (2024) who provide some updates to the initial theory. The review highlights the importance of innovation for the competitiveness of firms and consequently for the LED. In addition, the review refines the existing theory showing how the industry and local economy differently influence the performance of exporting firms operating in the city.

The theory of LED by building microeconomic competitiveness has several implications for public institutions wishing to accelerate LED. According to this theory, local public policies should aim to: (1) create a LBE that enables exporting industries, companies, and firms to be more successful when competing with companies outside the region; (2) support and accelerate the creation and development of industrial clusters that export to other regions; (3) enable exporting companies to implement best management practices to be well managed in the face of international competition (Lehene, Jaradat and Nistor, 2024; Porter, 2014). The focus of our research is on the first dimension (LBE) or as it is widely known in economic literature—the 'diamond model' (Porter, 1990).

In the following pages, we will discuss some aspects that public administration institutions may develop to build a LBE that facilitates the competitiveness of exporting firms. Next, we will test our hypotheses with empirical data provided directly from within the firms by business managers of medium and large manufacturing companies operating in Romania.

2.2. Role of local authorities in local economic development by building microeconomic competitiveness

We have identified in the existing literature at least three issues that local authorities should consider when aiming to stimulate LED. First, according to the theory we reviewed

above, the development of the microeconomic competitiveness requires a close partnership between public institutions and firms (Gordon and Kourtit, 2020; Porter, 2014). Local authorities should develop and implement public policies that integrate bottom-up initiatives proposed by people, firms and other social partners with those proposed by local authorities in a broader vision for the future (Masik, Sagan and Scott, 2021). The development of local or urban economies should involve multiple stakeholders, it should involve the development of partnerships where people, businesses and public institutions are the main developers of local economies and creators of Smart City initiatives (European Union, 2014).

Most research in the field of urban economics and public administration focuses on a top-down approach and the development of public policies at the national or regional level that need to be implemented by firms and companies (Gordon and Kourtit, 2020; Masik, Sagan and Scott, 2021). In line with Masik, Sagan and Scott (2021), we argue that the urban policies in Romania—like those implemented in Poland—focus too much on infrastructure development and geographic resources, neglecting the significant role of firms for LED. In fact, we will provide empirical evidence, directly reported by business managers, suggesting a rather low level of consideration of their company's needs in the regulatory process of their local economy. Moreover, existing research points out that other barriers to LED include the lack of financial resources, the existence of a top-down public policy culture, and insufficient or inadequate knowledge of the spatial economy (Masik, Sagan and Scott, 2021). Existing research in the field of public administration does not highlight the importance of taking into account the perspective of firms—especially exporting ones—when developing local public policies. This aspect of local economies is quite important because poor regulation could hinder the productivity and innovation of companies. This phenomenon has already occurred in other countries. Furman, Porter and Stern (2002) discussed that despite the high potential and innovative capabilities of French firms, the regulation of local economies seriously hindered the innovative output of the French companies in the 1970s and 1980s.

Therefore, the first role of local authorities in LED by building microeconomic competitiveness is to involve or increase the involvement of the private sector in the regulation of the LBE. This view of LED is not about favoring the development of a 'corporate vision of smartness' and the dominance of economic logic over political or social issues, as Hollands (2015, p. 2) argues. Rather it is about building the competitiveness of each location or city at the microeconomic level. It is about facilitating a strategic/ positive sum competition where multiple locations or cities can win. This will happen by enhancing the uniqueness of each location/ city, by focusing on smart specialization and by taking advantage of regional strengths (Balland *et al.*, 2018; Boschma, Pardy and Petralia, 2023; Hidalgo *et al.*, 2007; Neffke, Henning and Boschma, 2011) rather than attracting new factories or chasing hot fields as is the case with existing administrative practice (Porter, 2014).

Second, according to the economic base theory, firms develop goods and services for local consumption (non-basic activities) or produce goods and services for export to

other regions (basic activities or export base) (North, 1956; Tiebout, 1956). Although the non-basic activities are quite important—they may support the basic activities and provide the resources for exporting companies—the main attention of local policymakers should be on regulating LBE to support industries and firms that produce, sell and distribute goods and services to markets outside the region (Lehene, Jaradat and Nistor, 2024). The problem with the non-basic activities is that they do not generate above-average economic or social performance (Porter, 2003). According to Delgado *et al.* (2012) a location or city gains a competitive advantage when firms identify a need and develop a product to serve a large segment of customers outside the region or even outside the home country. Thus, in addition to supporting all industries and firms in the local economy—all of which need to be productive and innovative (Porter, 1998)—local authorities should develop public policies that prioritize and accelerate the development of industries and firms that produce, sell and distribute goods and services to markets outside the region.

Third, an emerging stream of literature discusses economic growth, economic diversification, regional change and reinvention from a relatedness perspective. From an evolutionary perspective, Hidalgo *et al.* (2007), Neffke, Henning and Boschma (2011), Balland *et al.* (2018), Boschma, Pardy and Petralia (2023) point out that locations develop through what regional scholars and geographers conceptualize as ‘related diversification’. Related diversity means that locations or cities economically develop—in the sense of the birth or entry of new industries and the addition of new economic activities—related to the industries and economic activities already present in the region. At the same time, locations develop a source of competitive advantage or differentiation based on the economic activities already existing in the location. The same logic applies to the development of new products for export. This pattern of LED is called in the literature of evolutionary economic geography the principle of ‘smart specialization’ (Balland *et al.*, 2018; Delgado, Porter and Stern, 2010; Hidalgo *et al.*, 2007; Kang *et al.*, 2022; Neffke, Henning and Boschma, 2011). Therefore, local authorities wishing to stimulate economic development should regulate specialized (not general) LBE for industries and firms that already operate in the regional economy.

In view of the above discussion, the proposed roles for local authorities—private sector involvement, support of exporting industries and firms and specialized regulations—will directly and positively influence: (1) the appropriateness of LBE to facilitate the productivity of firms; (2) the appropriateness of LBE to facilitate the innovation of firms; (3) the presence of related industries/ firms and complementors in the LBE; (4) the appropriateness of local competition. All three roles measure the same independent variable ‘Regulation of LBE by local authorities’. Therefore, based on the previous discussion, we can formulate four hypotheses for the statistical analysis (see also Figure 1):

Hypothesis 1: There is a positive relationship between the appropriateness of local business environment regulation and the existence of a local business environment that facilitates productivity.

Hypothesis 2: There is a positive relationship between the appropriateness of local business environment regulation and the existence of a local business environment that facilitates innovation.

Hypothesis 3: There is a positive relationship between the appropriateness of local business environment regulation and the presence of related industries/firms and complementors in the location or city.

Hypothesis 4: There is a positive relationship between the appropriateness of local business environment regulation and the appropriateness of local competition.

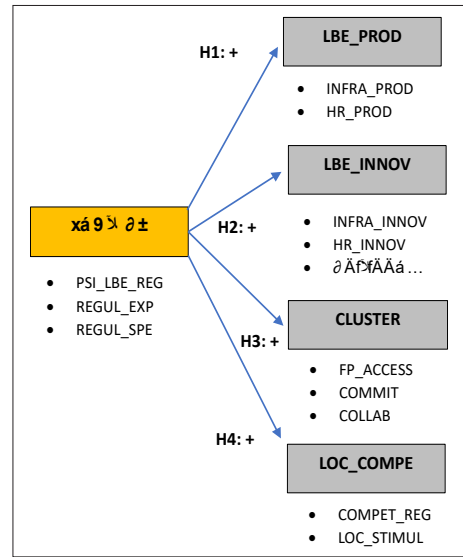


Figure 1: The relationship between local authorities' regulations and local economic conditions

Source: The authors

3. Methodology

3.1. Research strategy

To test the hypotheses regarding the influence of local authorities' regulations on the development of an appropriate LBE for firm productivity and innovation, cluster formation and suitability of local competition, we designed and implemented a nationwide questionnaire. We chose the manufacturing sector as the setting for our research because the focus is on the trading economy. Many firms operating in the agricultural or fishing sectors, for example, are suppliers of raw materials to exporting firms. Furthermore, firms and industries that rely on the use of natural resources (i.e., mining) in the long term are not sustainable, while many other sectors and industries cater to the needs of local consumption.

We chose to collect empirical data through a questionnaire to directly verify (1) business managers' perception of their LBE regulation, and (2) the problems they face in their location or city in terms of productivity and innovation to compete with companies outside the region. We, therefore, proceeded to collect empirical data through an email sent to 1,025 medium-sized and large companies. The time period for data collection ranged from 15 April to 15 September 2023. Finally, out of the 1,025 companies contacted, managers from 67 companies were interested in participating in the research (participation rate of 6.53%).

In terms of managerial experience, the executive suite in our study is quite experienced (16 years is the average managerial experience). 35 business executives (i.e., Chief Executive Officer) and 19 department/ middle managers (i.e., production directors) decided to

participate in our study. We decided to also include in our analysis the answers provided by seven first-line managers and by three firm specialists who are quite aware of the issues addressed in this paper (i.e., accountants). Moreover, the 67 respondents were affiliated to 41 national companies and 26 associated themselves with a branch or division of a multinational company in Romania. In the context of our research, it may be appropriate to mention that out of the 67 companies, 15 are large companies with more than 249 employees, the remaining being medium-sized companies with 50 to 249 employees.

3.2. Variables

To address the main objective of our research we designed independent and dependent variables at two levels of abstraction. First, we set out to investigate the holistic impact of LBE regulation (LOC_AUT) on the existing conditions for businesses in the location or city for both, firm productivity (LBE_PROD) and firm innovation (LBE_INNOV), on the presence of related and supporting industries/ firms in the local or urban economy (CL) and on the suitability of local competition (LOC_COMPE) (see Table 1).

Table 1: Variable measurement I

Variables	Description	Type	No. of items	Measurement	Cronbach Alpha
LOC_AUT	LBE regulation by local policymakers	IV	12	Likert 7-point	0.973
LBE_PROD	Appropriateness of LBE for firm productivity	DV	6	Likert 7-point	0.839
LBE_INNOV	Appropriateness of LBE for firm innovation	DV	7	Likert 7-point	0.896
CLUSTER	The presence of related industries/ firms and complementors in the location or city	DV	10	Likert 7-point	0.884
LOC_COMPE	The competitive landscape/ conditions in the location or city	DV	9	Likert 7-point	0.814

Source: The authors

Second, we set out to investigate in detail which aspects of regulation influence which facets or dimensions of the local economy. We have identified in the existing literature at least three aspects/ dimensions that can influence several aspects of local economies. The independent (IV) and dependent variables (DV) considered for the detailed analysis are shown in Table 2. Respondents used a 7-point Likert scale to rate their company’s position according to the statements mentioned in the questionnaire. Readers can also visualize the relationships between all the variables and the expected influence of each independent variable on each dependent variable in Figure 1.

Table 2: Variable measurement II

Variables	Description	Type	No. of items	Measurement	Cronbach Alpha
PSI_LBE_REG	Private sector involvement in LBE regulation	IV	3	Likert 7-point	0.948
REGUL_EXP	Local policymakers support firms that produce, sell, and distribute goods and services for export	IV	3	Likert 7-point	0.954
REGUL_SPE	Specialized (not general) regulations to support or accelerate existing industries in the trading/exporting economy	IV	7	Likert 7-point	0.950
INFRA_PROD	The existing local infrastructure is suitable for productivity	DV	4	Likert 7-point	0.752
INFRA_INNOV	The existing local infrastructure is suitable for innovation	DV	4	Likert 7-point	0.853
HR_PROD	In the local economy there are highly qualified human resources so that firms can be productive	DV	2	Likert 7-point	0.851
HR_INNOV	In the local economy there are highly qualified human resources so that firms can be innovative	DV	1	Likert 7-point	Not applicable
UNI_INNOV	Existence of universities and specialized research institutions as well as specialized educational programs in the local economy	DV	3	Likert 7-point	0.868
FP_ACCESS	In the local economy there are specialized factors of production	DV	4	Likert 7-point	0.921
COMMIT	Exporting economy firms support the growth and development of local partners	DV	1	Likert 7-point	Not applicable
COLLAB	Close strategic alliances of exporting companies with local partners	DV	5	Likert 7-point	0.767
COMPET_REG	Appropriateness of competition regulation in the LBE	DV	3	Likert 7-point	0.863
LOC_STIMUL	Existence of incentives in the local economy for firm productivity, R&D, and innovation	DV	2	Likert 7-point	0.847

Source: The authors

4. Data analysis and results

The empirical section of the paper will consist of two main parts, a detailed descriptive analysis (a diagnosis of LBE according to business managers) and a correlational analysis between LBE regulation and LBE suitability. First, we aim to find out how managers of medium and large companies in Romania perceive their LBE regulation (see also Table 3 and Table 4) and how they perceive the appropriateness of their LBE for productivity and innovation to compete successfully with companies outside the region (see also Table 5 and Table 6).

Table 3: Descriptive statistics

Variables	N	No. of items	Min	Max	Mean	Std. Deviation
LOC_AUT	63	12	12	77	30.32	16.905
LBE_PROD	64	6	8	38	23.45	7.530
LBE_INNOV	67	7	7	44	23.85	9.500
CLUSTER	64	10	10	61	38.11	12.162
LOC_COMPE	65	9	14	54	32.71	10.562
PSI_LBE_REG	65	3	3	19	8.55	4.535
REGUL_EXP	66	3	3	18	7.39	4.513
REGUL_SPE	64	7	7	46	16.97	9.871
INFRA_PROD	66	4	6	28	17.70	5.180
INFRA_INNOV	67	4	4	28	13.96	5.585
HR_PROD	65	2	2	12	5.77	2.983
HR_INNOV	67	1	1	6	2.78	1.631
UNI_INNOV	67	3	3	21	11.15	4.847
FP_ACCES	66	4	4	26	15.20	5.970
COMMIT	67	1	1	7	5.01	1.600
COMPET_REG	65	3	3	21	11.75	4.940
LOC_STIMUL	67	2	2	12	5.21	2.842
COLLAB	65	5	5	32	17.89	6.579

Source: The authors

Analyzing the data in Table 4, it can be seen that for all items measuring LBE regulation, without exception, the higher percentage of answers on the measurement were scale are for ‘Total disagreement’. Thus, most business managers reported that their LBE is not regulated as it should be for their firm to compete successfully with other companies outside the region. Furthermore, for all items measuring LBE regulation, between 50% and 60% of business executives positioned their organization on the disagreement side of the scale. We observed the same pattern for all items, with slight differences, in measuring LBE regulation by local authorities. Second, according to the business managers in our study, the main problems regarding LBE regulation is the attention given by local authorities to industry’s needs (50.7% of managers strongly disagreed), followed by little concern of local authorities to remove the barriers for industrial development (50% of managers strongly disagreed) and providing financial support for the organization of industrial events in their location according to the operational needs of their firm (48.7% of managers strongly disagreed).

Next, we aim to provide local policymakers with empirical evidence on how business managers view the appropriateness of their LBE in relation to firm productivity and innovation. First, regarding the appropriateness of LBE for productivity, as can be seen in

Table 4: Evaluation of LBE regulation by business managers

Items	1	2	3	4	5	6	7
Local authorities involve the firms in the regulation of the LBE	28.4%	17.9%	7.5%	28.4%	11.9%	6%	0%
Local authorities consider the data and information provided by companies in the LBE regulation	24.6%	23.1%	7.7%	26.2%	10.8%	6.2%	1.5%
Local authorities regulate their LBE according to the needs of firms to be competitive for national or international competition	33.3%	22.7%	10.6%	22.7%	7.6%	3%	0%
Local authorities support firms that produce goods and services for the national economy	42.4%	22.7%	7.6%	15.2%	9.1%	3%	0%
Local authorities support firms that produce goods and services for the international economy	40.9%	24.2%	6.1%	13.6%	7.6%	6.1%	1.5%
Local authorities support the formation of new businesses and the development of SMEs in related industries to our industry (suppliers, complementors, distributors)	37.9%	22.7%	7.6%	21.2%	7.6%	3%	0%
Local authorities concern to attract in our local economy firms from related fields to our industry (suppliers, complementors, distributors)	43.1%	18.5%	12.3%	16.9%	6.2%	1.5%	1.5%
Local authorities provide funding for the organization of events related to our industry	48.5%	15.2%	9.1%	13.6%	9.1%	4.5%	0%
Local authorities concern to create industrial parks and other production facilities, specialized for our industry	34.3%	20.9%	10.4%	13.4%	14.9%	3%	3%
Local authorities concern to attract in the local economy foreign direct investments according to the needs of our industry	38.8%	17.9%	6%	22.4%	10.4%	3%	1.5%
Local authorities pay special attention to the needs of our industry	50.7%	17.9%	7.5%	13.4%	7.5%	1.5%	1.5%
Local authorities concern to eliminate the barriers for our industry development and of our complementors	50%	13.6%	12.1%	16.7%	6.1%	0%	1.5%

Note. 1 = Total/ strong disagreement; 2 = Moderate disagreement; 3 = Slight disagreement; 4 = Between disagreement and agreement; 5 = Slight agreement; 6 = Moderate agreement; 7 = Total/ strong agreement

Source: The authors

Table 5, business managers reported that the major problem or barrier to productivity is the lack of highly qualified and specialized human resources in the local economy. No less than 60% of managers disagreed with this statement. On the other hand, managers reported that the logistics infrastructure in their LBE is adequate, and the companies have access to advanced and last generation technologies. At the same time, managers evaluated the administrative infrastructure and their firm's accessibility to financial resources with intermediate scores.

Table 5: LBE for firm productivity according to business managers

Items	1	2	3	4	5	6	7
Administrative infrastructure allows us to be productive	11.9%	13.4%	11.9%	17.9%	17.9%	14.9%	11.9%
Logistical infrastructure allows us to be productive	3%	13.4%	13.4%	16.4%	22.4%	22.4%	9%
Financial infrastructure allows us to get funding easily so we can be productive	12.1%	16.7%	15.2%	19.7%	12.1%	16.7%	7.6%
In the local economy we can find specialized highly qualified HR (researchers, engineers, managers) so we can be productive	25.8%	24.2%	12.1%	18.2%	13.6%	6.1%	0%
In the local economy we can find qualified HR, according to our industry needs, so we can be productive	24.2%	24.2%	12.1%	21.2%	12.1%	6.1%	0%
The technological infrastructure: we have access to last generation technologies so we can be productive	1.5%	4.5%	9%	10.4%	16.4%	41.8%	16.4%

Note. 1 = Total/ strong disagreement; 2 = Moderate disagreement; 3 = Slight disagreement; 4 = Between disagreement and agreement; 5 = Slight agreement; 6 = Moderate agreement; 7 = Total/ strong agreement

Source: The authors

Second, in Table 6 it can be seen that exporting companies reported the lack of qualified and specialized personnel (65% of managers), the inappropriateness of the administrative infrastructure for innovation (58% of managers) and the lack of specialized educational programs in the local universities (49% of managers) as major problems or barriers to innovation encountered in their LBE. While for productivity, managers agreed with the appropriateness of some local economic conditions, for innovation for all items, managers generally disagreed.

Table 6: LBE for firm innovation according to business managers

Items	1	2	3	4	5	6	7
University research infrastructure in our region is of high quality	7.5%	13.4%	17.9%	19.4%	20.9%	13.4%	7.5%
University research infrastructure in our region is specialized for activities related to our industry	14.9%	19.4%	11.9%	16.4%	17.9%	11.9%	7.5%
In our local universities there are educational programs specialized for our industry's needs	23.9%	11.9%	13.4%	17.9%	19.4%	7.5%	6%
Administrative infrastructure allows us to easily innovate	19.4%	23.9%	14.9%	22.4%	9%	7.5%	3%
Logistical infrastructure allows us to easily innovate	10.4%	22.4%	20.9%	17.9%	17.9%	9%	1.5%
Financial infrastructure allows us to get funding easily so we can easily innovate	14.9%	23.9%	17.9%	17.9%	9%	10.4%	6%
In the local economy we can find specialized and highly qualified HR (researchers, engineers, managers) so we can easily innovate	29.9%	22.4%	13.4%	16.4%	10.4%	7.5%	0%

Note. 1 = Total/ strong disagreement; 2 = Moderate disagreement; 3 = Slight disagreement; 4 = Between disagreement and agreement; 5 = Slight agreement; 6 = Moderate agreement; 7 = Total/ strong agreement

Source: The authors

So far, we have seen how business managers of medium and large companies in Romania see their LBE regulation by local authorities and the appropriateness of their LBE for firm productivity and innovation for national or international competition. In the following pages, we aim to investigate whether there is an association between LBE regulation and LBE suitability. The results of our analysis are shown in Table 7 and Table 8.

Table 7: Correlation matrix I

LOC_AUT	1	2	3	4	5	6	7	8
LOC_AUT	1							
PSI_LBE_REG-UL	0.934**	1						
REGUL_EXP	0.948**	0.897**	1					
REGUL_SPE	0.977*	0.852**	0.867**	1				
LBE_PROD	0.548**	0.510**	0.514**	0.527**	1			
LBE_INNOV	0.667**	0.632**	0.620**	0.623**	0.691**	1		
CL	0.574**	0.498**	0.488**	0.596**	0.570**	0.527**	1	
LOC_COMPE	0.760**	0.714**	0.720**	0.715**	0.612**	0.556**	0.495**	1

Note. **Correlation is significant at the 0.01 level (1-tailed); *correlation is significant at the 0.05 level (1-tailed).

Source: The authors

Table 8: Correlation matrix II

LOC_AUT	1	2	3	4	5	6	7	8	9	10	11	12	13
PSI_LBE_REG	1												
REGUL_EXP	0.948**	1											
REGUL_SPE	0.977**	0.852**	1										
INFRA_PROD	0.438**	0.444**	0.455**	1									
HR_PROD	0.487**	0.517**	0.528**	0.656**	1								
INFRA_INNOV	0.690**	0.658**	0.657**	0.692**	0.627**	1							
HR_INNOV	0.530**	0.535**	0.534**	0.562**	0.814**	0.712**	1						
UNI_INNOV	0.366**	0.408**	0.397**	0.364**	0.474**	0.697**	0.564**	1					
FP_ACCES	0.267*	0.311**	0.449**	0.436**	0.458**	0.455**	0.413**	0.447**	1				
COLLAB	0.573**	0.559**	0.615**	0.544*	0.551**	0.492**	0.521**	0.367**	0.656**	1			
COMMIT	0.291**	0.247*	0.276*	0.116	0.103	0.141	0.059	0.031	0.277*	0.424**	1		
COMPET_REG	0.615**	0.594**	0.554**	0.654**	0.489**	0.564**	0.502**	0.413**	0.252*	0.379**	0.106	1	
LOC_STIMUL	0.665**	0.680**	0.694**	0.526**	0.505**	0.485**	0.455**	0.222*	0.325**	0.497**	0.086	0.619**	1

Note. **Correlation is significant at the 0.01 level (1-tailed); *correlation is significant at the 0.05 level (1-tailed).

Source: The authors

At the general level of analysis, after analyzing the empirical data in Table 7, we can observe that locations or cities where business executives reported better scores for LBE regulation also reported better scores for the existence of an appropriate LBE for productivity ($r = 0.548$; $p < 0.01$), as well as for innovation ($r = 0.667$; $p < 0.01$). Thus, the empirical data support hypothesis 1, as well as hypothesis 2. Second, we can notice that locations or cities where business managers reported better scores for LBE regulation also reported better scores for the presence of related industries/firms and complementors in their location or city ($r = 0.574$; $p < 0.01$) and for competition suitability in their local economy ($r = 0.760$; $p < 0.01$). Again, our empirical data support hypothesis 3, as well as hypothesis 4. In addition, we can notice the same positive, quite strong and significant effect of all three variables measuring the proposed roles for local authorities on the factor (input) conditions for productivity and innovation, on cluster formation and appropriate local competition.

At the detailed level of analysis—presented in Table 8—except for some variables, we observed the same positive and statistically significant impact of all specific local authority variables on all specific local or urban conditions. Therefore, we can conclude that the data in the present study suggest that (1) regulating LBE by involving the firms and companies in the development of public policies, (2) supporting the development of industries and firms producing goods and services for export, and (3) the specialized (not general) regulation of LBE for national and international competition are associated with the development of an appropriate LBE for the competitiveness of exporting firms.

5. Implications for public policy

This research answered the call for more empirical studies in the field of public administration. The findings of the empirical analysis have implications for the practice of public administration and for local authorities wishing to stimulate LED. The paper highlights the specific issues local authorities need to improve to build or accelerate their LED by building microeconomic competitiveness. Thus, we propose that local policymakers should (1) increase the involvement or consideration of the needs of exporting firms in the regulation of their LBE; (2) support firms and industries that produce, sell and distribute goods and services for export; (3) regulate their LBE specialized (not general) so that exporting industries and firms find in their location the resources they need to be productive or to develop new goods and internationally competitive services. Empirical data underline that there is a direct and positive relationship between the appropriate regulation of the LBE and the suitability of local conditions for businesses in the face of national and international competition.

Depending on what companies and firms need when competing with firms outside the region, we can also derive more direct practical policy implications for Romania's public administration (and similar local economies in Eastern Europe). Recall that in this paper we also aimed to (1) diagnose LBE according to evidence provided directly by business

executives of medium and large Romanian companies, and (2) provide policy recommendations to improve the regulation of LBE for Romanian exporting companies to improve their competitiveness for international competition. Accordingly, we propose the following recommendations for local authorities and policymakers:

- local authorities, in close collaboration with private sector and local universities, may support the development of specialized educational programs according to exporting industries' needs to develop qualified and specialized human resources in the local economy;
- local policymakers should improve the existing administrative infrastructure so that exporting firms may easily navigate bureaucracy and regulatory procedures to gain easier access to the necessary factors of production to be productive or to develop new goods and internationally competitive services;
- local authorities may increase the involvement of exporting firms in LBE regulation and increase the consideration of data and information provided by exporting firms when developing public policies;
- local decision-makers should regulate their LBE according to the operational needs of exporting firms to compete successfully with companies outside the region;
- local authorities should support industries and firms that produce goods and services for export;
- local authorities should support the formation of new businesses and the development of SMEs in industries and related industries (suppliers, complementors, distributors) where their LBE possesses some strengths or some sources of uniqueness/differentiation;
- local decision makers should be concerned with attracting to their local economies firms in fields and industries related to existing regional strengths and their sources of uniqueness/ differentiation;
- local authorities should consider the creation of specialized industrial parks and other production facilities, depending on the operational and strategic needs of exporting firms; and
- local authorities should be concerned with removing barriers to industrial development of firms developing/ producing goods and services for international markets.

As we have seen previously, there is a positive and significant correlation between all these policy recommendations and the appropriateness of LBE for productivity and innovation, the formation of industrial clusters and appropriate local competition. Local economies and cities where business executives reported better scores for LBE regulation also reported better scores on finding appropriate local conditions for productivity and innovation, cluster formation and local competition.

Although we have formulated the implications/ recommendations for Romania's public policy, we argue that the same or similar local problems or barriers to productivity and innovation face many other companies in post-Soviet economies. Recent evidence suggests that European companies, compared to those in the US, are slowly lagging in terms

of productivity or developing new products for export (European Central Bank, 2016; Fernandez-Villaverde and Ohanian, 2018). Moreover, in the last two decades, European companies have been on a path of slowing down their productivity (Tsiapa, 2023) and innovation (European Commission, 2024a). For example, in May 2024, US companies exported goods and services totaling USD 262 billion, while in the European Union companies exported goods and services totaling only EUR 216,270 million (Trading Economics, 2024). Similar differences exist by GDP and GDP per capita. Productivity and/or innovation differences in export activities and other aggregate economic indicators between companies in Eastern Europe and the US are even greater (European Commission, 2024b). For instance, in 2023 Romania achieved a GDP per capita totaling USD 12,386 and the Czech Republic USD 19,800. In contrast, France achieved a GDP per capita totaling USD 38,976, while the US achieved a GDP per capita of USD 65,020 (Trading Economics, 2024).

The main idea is that lack of productivity or product development for export of firms in Eastern Europe can also be attributed to the same barriers in their LBE. We argue that Eastern European local or urban economies should also prioritize LED by microeconomic competitiveness building by accelerating local or regional exports. The same concepts developed in this paper (i.e., uniqueness, regional related diversification, smart specialization, attracting or developing economic activities in the location based on regional strengths) apply also to other local economies in Eastern Europe. Thus, the policy implications detailed above should also be applied by local policymakers in other locations and cities in Eastern European countries.

6. Conclusions

In this paper, we analyzed the relationship between LBE regulation and various facets or dimensions of local economies. We developed our argumentation based on a relatively new theory of LED by accelerating microeconomic competitiveness. From a competition-orientation perspective of LED, this theory places firms and companies at the center of attention. In particular, firms and companies that produce, sell and distribute goods and services for export. Accordingly, a location or city may achieve above-average economic and social performances only if the exporting firms can compete successfully with other firms outside the region. In this context, the possible implementation of this theory in business practice raises some implications for public institutions and local policymakers. We have discussed and empirically analyzed these implications in this paper.

Overall, we found that between 50% and 60% of business managers disagreed that their LBE is regulated according to their needs and operations for national and international competition. Therefore, we proposed various recommendations for local public policies. Instead of taking for granted that regulation of the local economy is favorable or detrimental to firm competitiveness, as many business executives in our study reported, we examined this question empirically. Following the empirical data analysis, we found that there is a direct, positive and statistically significant relationship between LBE regulation

and the appropriateness of local business conditions for firms in the trading economy. Local economies and cities where business executives reported better scores for LBE regulation also reported better scores on finding the right local conditions for productivity and innovation, cluster formation and local competition. It means that the more appropriate the regulation of the LBE will be, the better the existing conditions in the local economy will be for firms, so that they can compete successfully in international competition, being productive and/or developing new goods and internationally competitive services.

References:

1. Alesina, A., Özler, S., Roubini, N. and Swagel, P., 'Political Instability and Economic Growth', 1996, *Journal of Economic Growth*, vol. 1, no. 2, pp. 189–211.
2. Balaguer-Coll, M.T., Narbón-Perpiñá, I., Peiró-Palomino, J. and Tortosa-Ausina, E., 'Quality of Government and Economic Growth at the Municipal Level: Evidence from Spain', 2022, *Journal of Regional Science*, vol. 62, no. 1, pp. 96–124.
3. Balland, P.A., Boschma, R., Crespo, J. and Rigby, D.L., 'Smart Specialization Policy in the European Union: Relatedness, Knowledge Complexity and Regional Diversification', 2019, *Regional Studies*, vol. 53, no. 9, pp. 1252–1268.
4. Boc, E., 'Strategic Challenges for the Cities. Case Study: Cluj-Napoca', 2022, *Transylvanian Review of Administrative Sciences*, Special Issue, pp. 5–21.
5. Bogdanski, M., 'Modern Theories of Regional Development? A Review of Some Concepts', 2012, *Oeconomia Copernicana*, vol. 2, no. 3, pp. 25–41.
6. Borozan, D., 'Regional Competitiveness: Some Conceptual Issues and Policy Implications', 2008, *Interdisciplinary Management Research*, vol. 4, pp. 50–63.
7. Boschma, R., Pardy, M. and Petralia, S., 'Innovation, Industrial Dynamics and Regional Inequalities', in Bianchi, P., Labory, S. and Tomlinson, P.R. (eds.), *Handbook of Industrial Development*, Cheltenham: Edward Elgar, 2023, pp. 151–164.
8. Chen, Z. and Schintler, L.A., 'Rediscovering Regional Science: Positioning the Field's Evolving Location in Science and Society', 2023, *Journal of Regional Science*, vol. 63, no. 3, pp. 617–642.
9. Clipa, R.I. and Ifrim, M., 'Measuring the Regional Competitiveness. The Case of Romania', 2016, *The Annals of the University of Oradea. Economic Sciences*, vol. 25, no. 1, pp. 103–111.
10. Constantin, D.L., *Elemente fundamentale de economie regională* (Fundamentals of Regional Economics), Bucharest: Editura ASE, 2004.
11. Dawkins, C.J., 'Regional Development Theory: Conceptual Foundations, Classic Works, and Recent Developments', 2003, *Journal of Planning Literature*, vol. 18, no. 2, pp. 131–172.
12. Delgado, M., Ketels, C., Porter, M.E. and Stern, S., 'The Determinants of National Competitiveness', 2012, NBER Working Paper no. 18249, [Online] available at <https://www.nber.org/papers/w18249>, accessed on July 23, 2024.
13. Delgado, M., Porter, M.E. and Stern, S., 'Clusters and Entrepreneurship', 2010, *Journal of Economic Geography*, vol. 10, no. 4, pp. 495–518.
14. Denis, M., Cysek-Pawlak, M.M., Krzysztófik, S. and Majewska, A., 'Sustainable and Vibrant Cities. Opportunities and Threats to the Development of Polish Cities', 2021, *Cities*, vol. 109, pp. 1–9.

15. European Central Bank, *The Productivity Challenge for Europe*, 2016, [Online] available at https://www.ecb.europa.eu/press/key/date/2016/html/sp161130_1.en.html#:~:text=But%20productivity%20growth%20has%20remained,advanced%20economies%20and%20emerging%20markets, accessed on July 23, 2024.
16. European Commission, *Economy at Regional Level*, 2024b, [Online] available at https://ec.europa.eu/eurostat/statisticsexplained/index.php?title=Economy_at_regional_level#Labour_productivity, accessed on July 23, 2024.
17. European Commission, *Why Europe Is Losing the Race for Innovation*, 2024a, [Online] available at <https://ec.europa.eu/newsroom/eisma/items/826237/en#:~:text=One%20reason%20for%20the%20EU's,the%20USA%2C%20Japan%20or%20China>, accessed on July 23, 2024.
18. European Union, *Mapping Smart Cities in the EU*, 2014, [Online] available at [https://www.europarl.europa.eu/RegData/etudes/etudes/join/2014/507480/IPOL-ITRE_ET\(2014\)507480_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/etudes/join/2014/507480/IPOL-ITRE_ET(2014)507480_EN.pdf), accessed on July 23, 2024.
19. Fernandez-Villaverde, J. and Ohanian, L.E., 'The Lack of European Productivity Growth: Causes and Lessons for the U.S.', 2018, [Online] available at <https://ssrn.com/abstract=3253254>, accessed on July 23, 2024.
20. Fujita, M. and Krugman, P., 'The New Economic Geography: Past, Present and the Future', 2004, *Papers in Regional Science*, vol. 83, pp. 139–164.
21. Furman, J.L., Porter, M.E. and Stern, S., 'The Determinants of National Innovative Capacity', 2002, *Research Policy*, vol. 31, no. 6, pp. 899–933.
22. Gordon, P. and Kourtiti, K., 'Agglomeration and Clusters Near and Far for Regional Development: A Critical Assessment', 2020, *Regional Science Policy & Practice*, vol. 12, no. 3, pp. 387–396.
23. Guenduez, A.A. and Mergel, I., 'The Role of Dynamic Managerial Capabilities and Organizational Readiness in Smart City Transformation', 2022, *Cities*, vol. 129, pp. 1–16.
24. Hidalgo, C.A., Klinger, B., Barabassi, A.L. and Hausmann, R., 'The Product Space Conditions the Development of Nations', 2007, *Science*, vol. 317, no. 5837, pp. 482–487.
25. Hollands, R.G., 'Critical Interventions into the Corporate Smart City', 2015, *Cambridge Journal of Regions, Economy and Society*, vol. 8, no. 1, pp. 61–77.
26. Hoover, E.M. and Giarratani, F., *An Introduction to Regional Economics*, West-Virginia: WVU Research Repository, 2020.
27. Hotelling, H., 'Stability in Competition', 1929, *The Economic Journal*, vol. 39, no. 153, pp. 41–57.
28. Kang, T., Maliphol, S., Kogler, D. and Kim, K., 'Regional Knowledge Capabilities, Entrepreneurial Activity, and Productivity Growth: Evidence from Italian NUTS-3 Regions', 2022, *International Regional Science Review*, vol. 4, no. 3, pp. 293–320.
29. Kitson, M., Martin, R. and Tyler, P., 'Regional Competitiveness: An Elusive Yet Key Concept?', 2004, *Regional Studies*, vol. 38, no. 9, pp. 991–999.
30. Kitsos, T., Grabner, S.M. and Carrascal-Incera, A., 'Industrial Embeddedness and Regional Economic Resistance in Europe', 2023, *Economic Geography*, vol. 99, no. 3, pp. 227–252.
31. König, T., 'Between Collaboration and Competition: Co-located Clusters of Different Industries in One Region – The Context of Tuttlingen's Medical Engineering and Metal Processing Industries', 2023, *Regional Science Policy & Practice*, vol. 15, no. 2, pp. 288–325.

32. Kosfeld, R. and Mitze, T., 'Research and Development Intensive Clusters and Regional Competitiveness', 2023, *Growth and Change*, vol. 54, no. 4, pp. 885–911.
33. Krugman, P., 'Increasing Returns and Economic Geography', 1991, *Journal of Political Economy*, vol. 99, no. 3, pp. 483–499.
34. Lee, H., Butler, J.S. and Jeong, J., 'Administrative and Technological Innovation: The Indirect Effects of Organizational Culture and Leadership', 2023, *Transylvanian Review of Administrative Sciences*, vol. 68E, pp. 34–57.
35. Lehene, C.F., Jaradat, M. and Nistor, R.L., 'An Interdisciplinary and Multilevel Analysis of Local Economy Determinants and Their Impact on Firm Performance—Considering Porter's Diamond Model, Clusters, and Industry', 2024, *Systems*, vol. 12, no. 3, pp. 1–29.
36. Martin, R. and Sunley, P., 'On the Notion of Regional Economic Resilience: Conceptualization and Explanation', 2015, *Journal of Economic Geography*, vol. 15, no. 1, pp. 1–42.
37. Masik, G., Sagan, I. and Scott, J.W., 'Smart City Strategies and New Urban Development Policies in the Polish Context', 2021, *Cities*, vol. 108, pp. 1–9.
38. Neffke, F., Henning, M. and Boschma, R., 'How Do Regions Diversify over Time? Industry Relatedness and the Development of New Growth Paths in Regions', 2011, *Economic Geography*, vol. 87, no. 3, pp. 237–265.
39. North, D.C., 'Location Theory and Regional Economic Growth', 1956, *Journal of Political Economy*, vol. 63, no. 3, pp. 243–258.
40. Pascariu, G.C., Iacobuță-Mihăiță, A., Pintilescu, C. and Țigănașu, R., 'Institutional Dynamics and Economic Resilience in Central and Eastern EU Countries. Relevance for Policies', 2021, *Transylvanian Review of Administrative Sciences*, Special Issue, pp. 77–103.
41. Porter, M.E., 'Clusters and Competition: New Agendas for Companies, Governments, and Institutions', in *On Competition*, Boston, MA: Harvard Business School Press, 1998, pp. 3–54.
42. Porter, M.E., 'Reshaping Regional Economic Development: Clusters and Regional Strategy. Mapping the Midwest's Future', Institute for Strategy and Competitiveness and University of Minnesota, Humphrey School of Public Affairs, Minneapolis, MN, USA, September 29, 2014.
43. Porter, M.E., 'The Economic Performance of Regions', 2003, *Regional Studies*, vol. 37, no. 6&7, pp. 549–578.
44. Porter, M.E., *The Competitive Advantage of Nations*, New York: Free Press, 1990.
45. Profiroiu, C.M. and Negoită, I.C., 'Public Administration Reform in Romania: Assessing the Past and Looking into the Future', 2022, *Transylvanian Review of Administrative Sciences*, Special Issue, pp. 150–168.
46. Radu, L. and Radu, B.V., 'Politization of Public Administration in Romania and Its Consequences for Governance in Turbulent Times', 2023, *Transylvanian Review of Administrative Sciences*, Special Issue, pp. 131–148.
47. Rickard, S.J., 'Economic Geography, Politics and Policy', 2020, *Annual Review of Political Science*, vol. 23, pp. 187–202.
48. Sousa, S., 'Theories of Regional Economic Development: A Brief Survey', 2010, *Povos E Culturas*, vol. 14, pp. 29–52.
49. Sutton, J. and Arku, G., 'Regional Economic Resilience: Towards a System Approach', 2022, *Regional Studies, Regional Science*, vol. 9, no. 1, pp. 497–512.
50. Tiebout, C.M., 'Exports and Regional Economic Growth', 1956, *Journal of Political Economy*, vol. 64, no. 2, pp. 160–164.

51. Trading Economics, [Online] available at <https://tradingeconomics.com/>, accessed on July 23, 2024.
52. Tsiapa, M., 'A Holistic Approach of the Labor Productivity Slowdown in the Regions of the European Union', 2023, *Papers in Regional Science*, vol. 102, no. 3, pp. 507–531.
53. Weber, A., *Theory of the Location of Industries*, Chicago: University of Chicago Press, 1929.