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STARTUPS AS SOCIAL ACTORS IN SMALL OPEN ECONOMIES: EVIDENCE FROM THE BALTIC STATES*

Vladimir Menshikov¹, Oksana Ruza^{2*}, Anastasia Simakhova³, Givi Bedianashvili⁴

^{1,2*} Daugavpils University, Parades Str. 1, Daugavpils, LV-5401, Latvia

³ State University "Kyiv Aviation Institute", Huzara Ave, 1, Kyiv, 03058, Ukraine

⁴ Ivane Javakhishvili Tbilisi State University, 2, University Str., Tbilisi, 0186, Georgia

E-mails: ¹ vladimirs.mensikovs@du.lv; ^{2*} oksana.ruza@du.lv (Corresponding author); ³ natturlix@gmail.com; ⁴ givi.bedianashvili@tsu.ge

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Abstract. Startups have become a central element of economic development strategies in small open economies, particularly in Central and Eastern Europe. Existing research predominantly conceptualizes startups as instruments of innovation, economic growth, and international competitiveness. However, this economocentric perspective tends to overlook the social functions of startups and their role in shaping institutional and relational environments. This article addresses this gap by conceptualizing startups as social actors embedded in networks of social, institutional, and communicative relations. The study aims to analyze how startups perform social roles in small open economies, using the Baltic States - Latvia, Lithuania, and Estonia - as an empirical case. Methodologically, the article combines a qualitative comparative approach with document analysis of policy frameworks, ecosystem reports, and secondary empirical studies. The analytical framework draws on insights from economic sociology, institutional theory, and the literature on entrepreneurial ecosystems. The findings demonstrate that startups in the Baltic States function not only as economic entities but also as intermediaries between the state, the market, and elements of civil society. They contribute to the formation of entrepreneurial communities, the accumulation of social capital, and the reproduction of hybrid institutional arrangements characteristic of small open economies. At the same time, the study identifies ambivalent effects of startup development, including risks of social and regional concentration. The article contributes to comparative economic research by integrating social and institutional dimensions into the analysis of startups and offers policy-relevant insights for the design of more inclusive startup support strategies in small open economies.

Keywords: startups; social actors; small open economies; entrepreneurial ecosystems; Baltic States; Central and Eastern Europe

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1. Introduction

Over recent decades, startups have come to occupy a central position in the discourse on economic development, innovation policy, and entrepreneurship. In academic and applied research, they are predominantly conceptualized as instruments of accelerated economic growth, innovation commercialization, and enhanced

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national competitiveness (Stam, 2015; Audretsch & Belitski, 2017). This tendency is particularly evident in studies of small open economies, where startups are often presented as key resources for integration into global markets and for compensating structural constraints related to limited domestic demand and capital availability (Menshikov et al., 2025; Adner, 2017; Almotairy et al., 2020; Gupta, 2024; Lauterbach, 2019; Perry & Woolard; 2023; Truong, 2023). At the same time, such an economocentric approach significantly narrows the analytical perspective, leaving the social functions of startups and their role in transforming social relations largely underexplored. Startups operate not only as economic entities but also as participants in social interactions, shaping new forms of cooperation, entrepreneurial communities, professional identities, and channels of communication between the state, the market, and civil society. From the perspective of economic sociology, economic action is embedded in social relations and institutional contexts, which structure opportunities and constraints for actors (Granovetter, 1985; North, 1990; Ndofirepi & Steyn, 2025).

In small open economies - characterized by dense social networks, institutional hybridity, and dependence on external resources - the social role of startups becomes particularly salient. It should also be noted that in today's complex and dynamic global processes, it is especially important to identify and reflect the characteristics of small countries to promote the socio-economic development of these countries and ensure their macroeconomic and social stability (Bedianashvili & Kokhraidze, 2023).

The Baltic States - Latvia, Lithuania, and Estonia - represent a revealing example of small open economies in which startup ecosystems have developed with the active involvement of the state, universities, and international actors. A substantial body of research has been devoted to institutional conditions, policy frameworks, and the economic effects of startup development in the region, including comparative studies published in *Comparative Economic Research. Central and Eastern Europe* (Menshikov et al., 2025). However, the conceptualization of startups as social actors remains insufficiently developed. This creates a research gap between predominantly economic assessments of startup performance and analyses of their broader social and institutional impact.

This article seeks to move beyond traditional economic analysis by conceptualizing startups as social actors embedded in complex systems of social, institutional, and communicative relations. Such an approach makes it possible to reconsider the role of startups in the formation of social capital (Kai et al., 2024; Filippelli et al., 2025) in mediating interactions among key societal institutions, and in transforming patterns of social interaction in small open economies. By focusing on the Baltic States, the study contributes to the comparative research agenda concerned with the socio-institutional foundations of economic development in Central and Eastern Europe.

The aim of this article is to conceptualize startups as social actors in small open economies and to analyze the specific features of this role using the Baltic States as an empirical case.

To achieve this aim, the article addresses the following research objectives:

- to analyze existing theoretical approaches to the study of startups in the context of small open economies and to identify the limitations of economocentric interpretations (Stam, 2015; Audretsch & Belitski, 2017);
- to substantiate the application of the concept of the “social actor” to startup analysis based on insights from economic sociology and institutional analysis (Granovetter, 1985; North, 1990);
- to identify the key social roles performed by startups in the Baltic States, including the formation of entrepreneurial communities and social capital (Spigel, 2017);
- to examine the intermediary function of startups in interactions between the state, the market, and elements of civil society, as highlighted in comparative studies of Central and Eastern Europe (Menshikov et al., 2025);
- to determine the specific characteristics of small open economies that shape the social agency of startups, as well as to outline the limits and contradictions of this role.

The findings of the study contribute to a broader theoretical understanding of startups by complementing economic analysis with a social-institutional perspective and provide a foundation for a more comprehensive evaluation of startup policies in small open economies.

2. Literature review

Let us analyze the reflection of the concerns regarding "Startups as social actors" in the authoritative Scopus database. The number of publications reflecting this issue in scientific editions indexed in the Scopus scientometric database amounted to 65 articles. The number of publications in 2022 marks a dramatic spike to the peak value (12), from 2023 to 2025. According to the Scopus database, researchers from the United States (30 publications), Italy (24) and Brazil (22) and the Web of Science, researchers from the United States (12 publications), England (10) and Italy (10) were the most active ones in their consideration of the issues that are of interest. There are no studies on startup ecosystems in Latvia, Georgia, or Ukraine, a case study in the SCOPUS database. In the Web of Science database, there is 1 study in Ukraine.

The data analysis demonstrates a pronounced asymmetry in the distribution. The highest values are observed in Brazil and the United States (9 each), followed by Germany (8), and France and Italy (7 each). These countries form a group of leaders with a high concentration of the observed indicator. Countries with a medium level include the United Kingdom (5) and Spain (3), indicating a noticeably more moderate representation compared to the leading countries. A value of 2 is characteristic of a limited group of countries (including Australia, Canada, Colombia, Indonesia, Iran, Japan, Norway, Poland, and Taiwan), whereas the majority of countries exhibit the minimum value (1). The latter group is highly numerous and includes both European and non-European states.

The analysis shows that the largest share of publications falls within the field of Business, Management and Accounting, which accounts for 34 publications (approximately 52% of the total). This indicates the dominance of managerial and business-oriented approaches in studies of startups and social actors. The second most represented field is Social Sciences, with 20 publications (around 31%), reflecting substantial scholarly interest in the social, institutional, and actor-oriented dimensions of the topic. A significant presence is also observed in Computer Science (17 publications, approximately 26%), highlighting the important role of digital technologies and information systems in startup-related research. More moderate but still notable contributions are found in Decision Sciences (8 publications), Economics, Econometrics and Finance (7 publications), and Environmental Science (6 publications). Smaller numbers of publications are recorded in Energy and Engineering (4 publications each), as well as Psychology (3 publications). Overall, the distribution confirms the interdisciplinary nature of the research field, with a clear predominance of economic–managerial and social science perspectives, reflecting the complex character of startup analysis as a socio-economic and technological phenomenon.

Recent highly cited studies emphasize the growing role of startups not only as economic entities but also as socially embedded actors contributing to sustainable development and entrepreneurial ecosystems. One of the most influential contributions is the study by Paschen (2017). The author conceptualizes crowdfunding as a hybrid financial and social mechanism, highlighting the importance of trust, community engagement, and stakeholder interaction across different stages of startup development. This perspective aligns with sustainability-oriented entrepreneurship by framing startups as organizations whose growth depends on continuous social interaction and legitimacy within broader socio-economic systems.

A sustainability-focused strand of the literature is represented by Huynh (2022) (146 citations). The study demonstrates how digital innovation enables the emergence of circular and sustainable business models, positioning startups as agents of systemic transformation rather than mere adopters of existing market structures. Although sector-specific, the findings are particularly relevant for small open economies, where resource constraints and digitalization increase the importance of sustainability-driven entrepreneurial solutions.

The ecosystem perspective is further developed in Roundy (2017) (131 citations), where the author argues that social entrepreneurship should be viewed as an integral component of entrepreneurial ecosystems, rather than as a parallel or marginal phenomenon. This approach supports the interpretation of startups as social actors whose objectives extend beyond profit maximization to include social value creation and institutional change—an aspect especially salient in transition-oriented and small open economies such as the Baltic States.

3. Theoretical basis and methodology of the research

Beyond the Economic-Centric Approach to Startups. The academic literature on startups and entrepreneurial ecosystems has been dominated by an economic-centric perspective, in which startups are primarily analyzed through indicators of growth, innovation output, investment attraction, and contribution to GDP. This approach is particularly prevalent in studies of small open economies, where startups are frequently framed as instruments for accelerating modernization, increasing competitiveness, and integrating national economies into global markets (Audretsch & Belitski, 2021; Halberstadt et al., 2021; Matricano, 2022; Werbik, 2024). While such an approach provides valuable insights into economic performance, it significantly narrows the analytical scope of startup research. By focusing predominantly on measurable economic outcomes, it tends to overlook the social embeddedness of startups and their role in shaping social relations, norms, and institutional interactions. As a result, startups are often reduced to firm-level entities, detached from the broader social and institutional contexts in which they operate. This limitation becomes especially evident in post-socialist and Central and Eastern European economies, where entrepreneurial activity is deeply intertwined with institutional transformation, social networks, and historically shaped patterns of trust and cooperation. In such contexts, startups cannot be fully understood without considering their social functions and their participation in the reproduction and transformation of social structures.

Small Open Economies as a Socio-Institutional Context. The concept of small open economies is traditionally rooted in macroeconomic analysis, emphasizing openness to trade, capital mobility, and vulnerability to external shocks. However, from a socio-institutional perspective, small open economies exhibit distinctive characteristics that directly shape entrepreneurial activity.

These economies are typically characterized by limited domestic markets, high actor density, close interaction between public and private sectors, and a strong reliance on informal networks. The relative proximity of key actors - state agencies, universities, investors, and entrepreneurs - creates an environment in which economic activities are closely embedded in social relations. Institutional boundaries are often blurred, and personal networks play a crucial role in access to resources and opportunities (Estrin, Mickiewicz, & Stephan, 2013). In the Baltic States, these features are further reinforced by the post-socialist legacy and rapid institutional restructuring. Startups operate within ecosystems where state support schemes, academic institutions, and international actors are tightly interconnected. Consequently, startups function not only as economic units but also as nodes within dense social and institutional networks, influencing patterns of coordination and governance within the economy.

Startups as Social Actors: Conceptual Foundations. To overcome the limitations of economic-centric interpretations, this study adopts the concept of the social actor, drawn from economic sociology and institutional theory. A social actor is understood not merely as a rational economic agent, but as an entity embedded in networks of social relations, norms, and expectations that shape its behavior and agency (Granovetter, 1985).

Applying this concept to startups implies a shift from viewing them solely as profit-oriented firms to understanding them as participants in social processes. As social actors, startups contribute to the production and circulation of meanings related to innovation, risk-taking, and success, while simultaneously influencing institutional practices and expectations. This perspective aligns with relational approaches to entrepreneurial ecosystems, which emphasize the importance of networks, shared narratives, and social legitimacy over purely structural or resource-based explanations (Spigel, 2017; Van Rijnsoever, 2022; Kai et al., 2024; Filippelli et al., 2025). In small open economies, where formal institutions may be limited or rapidly evolving, such social dimensions become particularly salient.

Social Capital and Network Embeddedness of Startups. A key dimension of startups' social agency is their role in creating and transforming social capital. Social capital is commonly defined as the set of networks, norms, and trust that facilitate coordination and cooperation among actors. In entrepreneurial ecosystems, social capital plays a critical role in enabling access to information, finance, and markets.

Startups contribute to both bonding social capital, which strengthens ties within relatively homogeneous groups, and bridging social capital, which connects diverse actors across institutional and national boundaries. The latter is particularly important in small open economies, where access to international networks often determines the viability and scalability of startups. From a network perspective, startups frequently occupy intermediary positions that allow them to bridge structural and informational holes between different institutional spheres, such as academia, government, and business (Marcon & Ribeiro, 2021; Cavallo et al., 2021; Nunes et al. 2022; Kazantsev et al., 2024). In the Baltic context, accelerators, incubators, and university-based startup hubs institutionalize these bridging functions, reinforcing the social role of startups as connectors and facilitators within the ecosystem.

Startups as Institutional Intermediaries. Another crucial aspect of startups' role as social actors lies in their intermediary function between the state, the market, and civil society (Lana & Pimenta, 2022; Išoraitė et al., 2024; Mohamed et al., 2024; Cavallo et al., 2025). In small open economies, startups often emerge at the intersection of public policy initiatives, private investment strategies, and educational or civic projects. Research on Central and Eastern Europe highlights that the entrepreneurial ecosystem in the region is strongly shaped by state-led support mechanisms, including grants, innovation vouchers, and public accelerators (Menshikov et al., 2025). Startups translate these policy instruments into market-oriented activities, effectively mediating between public objectives and private incentives. At the same time, startups contribute to the diffusion of global business models and technological standards into local contexts, adapting them to specific institutional and social conditions. This intermediary position, however, also generates tensions related to dependency on public funding, unequal access to networks, and the potential reproduction of social inequalities within startup ecosystems. Conceptualizing startups as social actors provides a more comprehensive framework for analyzing their role in small open economies. This approach highlights that startups are not merely vehicles of innovation and growth, but also agents of social coordination, institutional adaptation, and network formation.

For the Baltic States and other Central and Eastern European economies, this perspective offers important insights into how startups contribute to broader socio-economic transformations beyond measurable economic outcomes. It also lays the theoretical foundation for empirical analysis aimed at identifying both the enabling and constraining conditions of startups' social agency within small open economies.

This study adopts a comparative qualitative research design aimed at conceptualizing startups as social actors within small open economies and examining how this role is articulated in the Baltic States - Latvia, Lithuania, and Estonia. A comparative approach is particularly suitable for this research, as it allows for the identification of both shared patterns and country-specific variations within structurally similar national contexts.

The research design is theory-driven and exploratory. Rather than testing predefined hypotheses, the study seeks to operationalize the concept of startups as social actors and to explore their social roles, interaction patterns, and institutional functions across national cases. Such an approach is consistent with institutional analysis and economic sociology, where qualitative and comparative methods are widely used to capture embeddedness, networks, and intermediary roles that cannot be adequately measured through quantitative indicators alone (Granovetter, 1985; North, 1990).

The Baltic States were selected as empirical cases based on a most-similar systems design, which is commonly applied in comparative research to control for structural similarities while allowing meaningful variation in outcomes (Menshikov et al., 2024).

The selection of Latvia, Lithuania, and Estonia is justified by several criteria:

1. Structural similarity: All three countries are small open economies with limited domestic markets and high exposure to global economic processes.
2. Shared historical and institutional background: The Baltic States underwent post-socialist transformation, which continues to shape entrepreneurial norms, institutional trust, and governance arrangements.
3. Policy relevance: Each country has implemented explicit startup and innovation policies, making them appropriate cases for analyzing interactions between startups, the state, and other institutional actors.

4. Variation within similarity: Despite common structural features, the Baltic States differ in terms of startup ecosystem maturity, governance models, and degrees of international integration, enabling comparative insights.

This combination of similarity and variation provides a robust basis for identifying generalizable mechanisms while remaining sensitive to national specificities.

Data Sources. The empirical analysis relies on secondary qualitative and institutional data, which is appropriate for a study focused on macro - and meso-level social roles rather than micro-level firm performance. The primary data sources include:

- national and regional startup and innovation policy documents;
- analytical reports produced by startup agencies, accelerators, and innovation hubs;
- official statistical data related to entrepreneurship and innovation;
- reports by international organizations and research institutions;
- peer-reviewed academic literature on startup ecosystems in the Baltic States and Central and Eastern Europe.

The use of multiple data sources enables methodological triangulation, enhancing the credibility and consistency of the findings.

Analytical Approach. The analysis follows a comparative thematic approach, combining elements of institutional analysis and economic sociology. Empirical materials were examined through iterative reading and thematic coding, guided by the theoretical framework developed in the preceding section.

Three analytical dimension's structure in the comparative analysis:

- Social roles of startups, such as community building, knowledge brokerage, and norm diffusion;
- Network embeddedness and social capital, focusing on startups' participation in entrepreneurial networks and ecosystem structures;
- Intermediary functions, examining how startups mediate interactions between the state, the market, and other societal actors.

These dimensions are treated as analytical lenses rather than fixed categories, allowing flexibility in capturing overlapping and context-dependent roles (Spigel, 2017). The approach emphasizes interpretation and pattern identification rather than causal measurement, in line with qualitative comparative methodology.

Validity and Limitations. The study prioritizes analytical and theoretical validity over statistical generalization. By grounding the analysis in established theoretical concepts and systematically comparing multiple national contexts, the research enhances internal coherence and interpretative robustness.

Several limitations should be acknowledged. First, reliance on secondary data constrains the ability to capture micro-level perceptions and informal interactions among startup founders. Second, the focus on the Baltic States limits direct generalization to other regions. Nevertheless, given the shared characteristics of many small open economies in Central and Eastern Europe, the findings possess analytical transferability to similar institutional contexts.

Ethical Considerations. The study is based exclusively on publicly available documents and published materials. No personal or sensitive data were used, and no ethical approval was required. The research adheres to standard principles of academic integrity, transparency, and responsible use of secondary data.

Methodological Contribution. By combining a comparative qualitative design with a socio-institutional analytical framework, this methodology enables a nuanced examination of startups beyond economic performance indicators. It provides a structured basis for analyzing startups as social actors in small open economies and supports the subsequent empirical analysis of the Baltic States (see Table 1 below).

Table 1. Structural Constraints of the Baltic Startup Ecosystem

Structural dimension	Empirical indicators	Evidence for Latvia, Lithuania, Estonia	Key sources
Limited domestic market size	Population size; limited internal demand	Combined population of the Baltic States $\approx$ 6 million inhabitants, placing the region among the smallest markets in the EU and limiting the scalability of B2C-oriented startups	Sifted (2024); Menshikov et al. (2025)
Early internationalization pressure	Share of startups targeting foreign markets at early stages	Baltic startups tend to pursue international markets from inception due to insufficient domestic demand	Menshikov et al. (2025); Stam (2015)
Restricted access to venture capital	Total VC funding; average deal size	By mid-2023, Baltic startups raised approx. €516 million in total, with a large share of rounds below €300,000, indicating limited late-stage funding	Dealroom (2023); Baltic VC Survey (2025)
Reliance on founders' own resources	Share of bootstrapped startups	Around 59% of startups report relying primarily on founders' personal funds at the launch stage	Baltic VC Survey (2025)
Investor caution and funding volatility	Founder perceptions; investment dynamics	Over 60% of founders report increased investor caution; funding availability remains unstable, especially for early-stage ventures	ArcticStartup (2024); Baltic VC Survey (2025)
High business vulnerability	Risk of closure	Between 30% and 40% of startups report having faced a serious risk of shutdown	Baltic VC Survey (2025)

Source: elaborated by the authors based on *secondary empirical data*.



Figure 1. Startups as Social Actors in Small Open Economies

Source: elaborated by the authors

Figure 1 presents the conceptual framework developed in this study. It illustrates how startups in small open economies operate under structural constraints such as limited domestic markets, restricted access to capital, and institutional volatility. In response, startups perform distinct social roles, including community building, social capital formation, and knowledge brokerage. Through these roles, startups act as institutional intermediaries connecting the state, the market, and civil society, thereby contributing to sustainability outcomes such as ecosystem resilience, institutional adaptability, and inclusive development.

4. Empirical results

Structural Constraints of the Baltic Startup Ecosystem. Empirical evidence indicates that startups in the Baltic States operate under a set of structural constraints that significantly shape entrepreneurial behavior and organizational strategies. These constraints—limited domestic markets, restricted access to capital, and heightened uncertainty—are characteristic of small open economies and systematically condition the forms of coordination available to economic actors (Menshikov et al., 2025).

First, the limited size of the internal market represents a fundamental constraint. The combined population of Latvia, Lithuania, and Estonia is approximately six million inhabitants, placing the Baltic region among the smallest consumer markets in the European Union (Sifted, 2024). For many startups, especially those operating in consumer-oriented segments, domestic demand is insufficient to sustain growth beyond the early stages. As

a result, early internationalization is not a strategic choice but a structural necessity (Stam, 2015; Menshikov et al., 2025).

Second, empirical data reveal a persistent deficit of accessible external capital. Although the Baltic startup ecosystem has experienced growth in venture investment, total funding volumes remain modest by European standards. By mid-2023, Baltic startups had raised approximately €516 million in total, with a substantial proportion of investment rounds remaining below €300,000 (Dealroom, 2023). This funding structure reflects cautious investor behavior and limited availability of scale-up capital, particularly for ventures beyond the seed stage. Survey-based evidence further highlights the prevalence of self-financing and bootstrapping strategies. According to the Baltic Startup Survey, around 59% of startups rely primarily on founders' personal funds at the launch stage, while many continue to depend on internal resources even after market entry (Baltic VC Survey, 2024). This reliance on informal financial sources underscores the importance of trust-based relationships and close social ties in resource mobilization.

Third, the data indicate heightened vulnerability and uncertainty in the startup sector. More than 60% of founders report increased investor caution in recent years, reflecting broader macroeconomic instability and tightening financial conditions (ArcticStartup, 2024). At the same time, between one-third and two-fifths of surveyed startups indicate that their ventures have faced a serious risk of closure, highlighting the fragile nature of entrepreneurial activity in small open economies (Baltic VC Survey, 2024).

Social Embeddedness as a Compensatory Mechanism. Under these conditions, startups in the Baltic States increasingly rely on social embeddedness as a compensatory mechanism that partially substitutes for deficiencies in formal market and financial institutions. Dense entrepreneurial networks, accelerator communities, informal founder groups, and repeated interpersonal interactions facilitate access to information, capital, and international contacts. Such network-based coordination reduces transaction costs and mitigates uncertainty, particularly in environments characterized by limited institutional depth (Granovetter, 1985; North, 1990).

Importantly, empirical observations suggest that social embeddedness is not confined to the early survival phase. The need to access foreign markets, establish credibility with external investors, and navigate regulatory environments reinforces the structural role of networks throughout the startup life cycle. In this sense, social embeddedness in the Baltic context functions not as an auxiliary feature but as a structural condition of entrepreneurial viability. Overall, the empirical results support the central argument of this article: in the Baltic States, the combination of small domestic markets, constrained access to capital, and institutional uncertainty systematically amplifies the importance of informal coordination and network-based resource mobilization. These findings provide empirical grounding for the conceptualization of startups as social actors and reinforce the relevance of social and institutional perspectives in comparative analyses of entrepreneurship in Central and Eastern Europe. Below is a separate comparative Table 2 focused exclusively on the social indicators of startup ecosystems in the Baltic countries, constructed in line with the conceptual framework of this article, which treats startups as social actors rather than merely economic units.

Table 2. Social Indicators of Startup Ecosystems in the Baltic States

Social dimension	Indicator	Estonia	Lithuania	Latvia	Key sources
Social embeddedness	Density and cohesion of startup communities	Very high: long-established, highly networked communities with strong peer coordination	High: rapidly expanding communities, increasing cross-sector ties	Medium: fragmented but growing community	Baltic Startup Survey (2024); ArcticStartup (2024)
	Reliance on informal networks for resources (mentorship, early funding, hiring)	High but increasingly institutionalized	Very high, especially at early stages	Very high, compensating for market and capital constraints	Baltic VC Survey (2024); Menshikov et al. (2025)

Social dimension	Indicator	Estonia	Lithuania	Latvia	Key sources
Social capital formation	Role of startups in creating professional identities and entrepreneurial norms	Strong: entrepreneurship as a normalized career path	Growing rapidly	Emerging	Stam (2015); StartupBlink (2024)
	Inter-startup cooperation and knowledge sharing	Strong and routinized	Strong but less formalized	Selective and project-based	ArcticStartup (2024)
Civic and societal engagement	Participation in education, mentoring, and skills development	High: systematic links with universities, coding schools, accelerators	High: strong involvement in fintech and cybersecurity education	Moderate: mainly event-based	Menshikov et al. (2025); national innovation agencies
	Engagement in socially oriented or civic-tech initiatives	Moderate to high (e-governance, digital public services)	Moderate (security, consumer protection, digital inclusion)	Low to moderate	OECD GovTech reports; Startup Estonia
Public legitimacy and visibility	Social legitimacy of startups in public discourse	High: startups perceived as national development actors	Increasing	Moderate	StartupBlink (2024); BalticVC (2024)
	Media and policy framing of startups	Integrated into national narratives (“e-Estonia”)	Strongly innovation-focused	Primarily economic framing	BalticVC (2024); national policy documents
Social role maturity	Degree of institutionalization of social roles	High: social functions embedded in ecosystem design	Medium–high: transitioning toward institutionalization	Medium–low: largely informal	Authors' synthesis based on the above sources

Source: elaborated by the authors based on secondary empirical data

Estonia demonstrates the most mature form of startup social agency: social embeddedness is not compensatory in nature but is institutionally anchored through education, digital government, and public discourse. Lithuania is characterized by an accelerated formation of the social role of startups, where informal networks still play a central role but are gradually being complemented by formal institutions. Latvia exhibits an adaptive and compensatory pattern of startup social embeddedness, which increases the importance of network-based mechanisms under conditions of a limited market and capital availability.

5. Research results and discussion

Startups as Social Actors: Implications for the Embeddedness Perspective

Empirical evidence from the Baltic States strongly supports the theoretical assumption that startups in small open economies operate as socially embedded actors rather than isolated market units. This finding resonates with the embeddedness approach in economic sociology, which emphasizes that economic action is structured by networks of social relations, trust, and shared norms (Granovetter, 1985).

In the Baltic context, embeddedness appears not as a supplementary characteristic but as a structural condition of entrepreneurial survival. Limited domestic markets, constrained access to capital, and institutional volatility increase the importance of informal coordination and network-based resource mobilization. Similar patterns have been identified in comparative studies of transition and post-transition economies, where social capital compensates for institutional gaps (North, 1990).

At the same time, the findings extend embeddedness theory by demonstrating that startups are not merely embedded *in* networks but actively contribute to their reproduction. By initiating interactions, organizing community events, and participating in ecosystem governance, startups shape the very social structures on which they depend. This recursive relationship between agency and structure is particularly visible in small open economies, where the density of interactions amplifies individual and collective effects.

Startups and Entrepreneurial Ecosystems: From Structure to Agency. The results of the study contribute to the growing literature on entrepreneurial ecosystems by shifting analytical attention from ecosystem components to startup agency within ecosystems. While existing frameworks conceptualize ecosystems as configurations of institutions, actors, and resources (Stam, 2015; Audretsch & Belitski, 2017), the Baltic case illustrates how startups themselves function as relational integrators that connect these elements in practice. Comparative research on Central and Eastern Europe emphasizes that entrepreneurial ecosystems in the region are often characterized by institutional fragmentation and uneven development (Menshikov et al., 2025). Under such conditions, startups frequently assume intermediary roles, linking universities, public agencies, and private investors. This finding supports Spigel's (2017) argument that ecosystems are fundamentally relational phenomena sustained through ongoing interaction rather than static institutional arrangements. The discussion thus reinforces a dynamic interpretation of entrepreneurial ecosystems, in which startups act as institutional carriers of norms, expectations, and practices. This perspective is particularly relevant for CER, as it aligns ecosystem analysis with broader comparative and institutional approaches in economic research.

Mediation Between State and Market in Small Open Economies. The intermediary role of startups between the state and the market observed in the Baltic States confirms theoretical insights from institutional economics and comparative political economy. In small open economies, the state often plays a proactive role in shaping innovation trajectories, whereas market mechanisms alone are insufficient to sustain entrepreneurial dynamics. The findings show that startups translate public innovation strategies into operational market practices, functioning as policy implementers and feedback providers. This mediation role has been documented in comparative studies of startup ecosystems in Latvia, Ukraine, and Georgia, where startups act as key transmission belts between public institutions and private economic activity (Menshikov et al., 2025). However, the discussion also highlights the ambivalent consequences of such mediation. While state support can accelerate ecosystem development, it may also create dependency and selective inclusion, privileging actors with better network access. This observation echoes broader debates in CER on the uneven effects of state intervention in post-socialist and transition economies.

Professional Identities, Entrepreneurial Agency, and Precarity. The transformation of professional identities associated with startup participation connects the empirical findings to sociological theories of entrepreneurialization and labor market change. In the Baltic States, startup engagement increasingly represents a culturally legitimate and socially valorized career path, particularly among younger cohorts. This development supports theoretical arguments that entrepreneurship has become a dominant model of agency in contemporary capitalism, emphasizing flexibility, self-responsibility, and continuous self-investment. At the same time, critical perspectives caution that such models may normalize precarious employment and shift risks from institutions to individuals. The Baltic case illustrates this duality clearly. While startups expand opportunities for autonomy and innovation, access to entrepreneurial resources remains uneven, reinforcing existing social hierarchies. This aligns with comparative findings in Central and Eastern Europe, where entrepreneurial opportunities are often stratified along educational, regional, and network-based lines (Menshikov et al., 2025).

Social Cohesion, Inequality, and the Limits of Startup-Led Development. The discussion of social cohesion and inequality highlights the limits of viewing startups as inherently inclusive engines of development. Although startup communities foster collaboration and trust at the meso level, they may simultaneously contribute to macro-level inequalities by concentrating resources in specific regions and social groups. This finding is consistent with comparative research published in CER, which emphasizes that innovation-driven growth in Central and Eastern Europe often exhibits spatial and social polarization. In the Baltic States, the concentration of startup activity in capital cities and major hubs reflects broader patterns of uneven development typical of small open economies. Theoretically, this suggests that the social agency of startups must be analyzed within broader structural contexts. Startups do not operate in a social vacuum; their effects on cohesion and inequality depend on institutional arrangements, policy design, and the distribution of social capital.

Theoretical and Comparative Implications. The expanded discussion yields several theoretical implications. First, it reinforces the relevance of embeddedness and social capital for understanding entrepreneurship in small open economies. Second, it demonstrates that entrepreneurial ecosystem theory benefits from greater attention to startup agency and mediation. Third, it highlights the analytical value of the Baltic States as comparative

cases for Central and Eastern Europe. By integrating insights from economic sociology, institutional economics, and ecosystem theory, the study contributes to the comparative research agenda of CER. It shows that startups are not merely objects of policy or outcomes of market processes, but active social actors shaping institutional change.

Conclusions

This article set out to expand the analytical framework for studying startups in small open economies by incorporating a social and institutional perspective. By conceptualizing startups as social actors rather than solely as vehicles of innovation and economic growth, the study addresses the limitations of predominantly economocentric approaches and offers a more comprehensive understanding of their role in the socio-economic development of the Baltic States.

Theoretical Contribution. The primary theoretical contribution of the article lies in the conceptualization of startups as social actors embedded in networks of social, institutional, and communicative relations. Unlike mainstream approaches that treat startups mainly as functional elements of entrepreneurial ecosystems, this study demonstrates that startups actively shape these ecosystems through their intermediary and relational roles. The article contributes to the literature on entrepreneurial ecosystems by shifting the focus from structural components and policy instruments to the agency of startups themselves. Startups are shown to function not merely as outcomes of supportive environments but as mediators connecting universities, public institutions, markets, and transnational networks. The study advances the concept of social embeddedness by illustrating that, in small open economies, startups' reliance on social networks is not incidental but structurally embedded in the logic of economic organization. Startups both depend on and actively reproduce social capital, contributing to the formation of entrepreneurial communities and shared norms. The article contributes to comparative economic research on Central and Eastern Europe by highlighting the analytical relevance of the Baltic States as cases for examining the interaction between entrepreneurship, institutions, and social structures in post-socialist and small open economies.

The study's findings have important implications for public policies related to startups in small open economies. Most notably, they point to the need to move beyond narrowly defined economic performance indicators—such as the number of startups, investment volumes, or high-growth firms—when designing and evaluating policy interventions.

Startup policies should explicitly recognize the social functions of startups, including their role in building entrepreneurial communities, fostering social capital, and mediating interactions between the state, the market, and civil society. Support for networking initiatives, educational and communicative platforms, and mechanisms of horizontal coordination may be as important as direct financial incentives. At the same time, the identified ambivalent effects of startup development—such as the risks of social and regional segmentation—underscore the importance of more inclusive policy approaches. For the Baltic States, this implies addressing the strong concentration of startup activity in capital cities and mitigating dependence on a limited set of institutional and network actors.

The article demonstrates that startups in small open economies should be understood not only as economic instruments but also as socially embedded actors that participate in shaping institutional environments, social networks, and modes of interaction. This perspective enhances the analytical capacity of comparative economic research and supports a more balanced and institutionally informed understanding of entrepreneurship in Central and Eastern Europe.

Directions for Future Research. Despite its contributions, the study has several limitations that point to promising directions for future research. Further studies could incorporate micro-level qualitative data, such as interviews with startup founders, accelerator managers, and public officials, to explore the mechanisms of social agency in greater depth. Extending the comparative scope beyond the Baltic States to include other small open economies in Central and Eastern Europe and Northern Europe would help to distinguish context-specific patterns from more general structural features. Future research could focus on digital and AI-driven startups as

emerging forms of social agency, particularly in relation to transformations of labor, communication, and trust in contemporary economies. Finally, integrating startup studies with research on social stratification and inequality would allow for a more critical assessment of the long-term social consequences of startup-oriented development strategies.

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Vladimir MENSHIKOV is Dr.sc.soc., Professor at Daugavpils University. His research interests include sociology of security; regional development; capital theory. He is an Expert of the Latvian Council of Science in the fields of economics and sociology.

ORCID: <https://orcid.org/0000-0003-4280-427x>

Oksana RUZA is Dr.oec., Docent, Researcher at the Institute of Humanities and Social Sciences of Daugavpils University (Latvia). She is an Expert of the Latvian Council of Science in the fields of economics. Her research interests include regional economics, industrial economics, finances.

ORCID: <https://orcid.org/0000-0002-6194-3841>

Anastasiia SIMAKHOVA is Professor of National Aviation University, Ukraine. Research interests: social economy models, global economy social metrics, national economy development, socialization, globalization, economic and social development. **ORCID:** <https://orcid.org/0000-0001-7553-4531>

Givi BEDIANASHVILI is Dr. Sc. oec., Professor (associate) at Ivane Javakhishvili Tbilisi State University (Georgia); Researcher at Ilia State University Institute of Demography and Sociology; Professor at Grigol Robakidze University. His research interests include macroeconomics, econometrics, socioeconomic modeling and forecasting, economic growth, human capital, green economy and sustainable development, entrepreneurship, systems research, digital economy and business, cultural factor in economy and business.

ORCID: <https://orcid.org/0000-0003-4521-737X>

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