

Territorial embedding of agri-food companies in the inner periphery. A comparative case study of two neighbouring Hungarian districts

Katalin Szabó, Ph.D. Student

University of Debrecen, Department of Social Geography and Regional Development
Planning

In the last thirty years, while the public debates about rurality have centered on economic decline and unemployment, these areas are still described as the primary space for the agri-food value creation. From a socio-economic perspective, this kind of specialization should not be seen as a negative trend. Agri-food firms depend on climatic and soil conditions and rely on local production systems – from agricultural inputs and feed resources to food processing. Despite its importance, the impact of such territorial embeddedness remains an under-researched area.

This paper analyses the impact of agri-food firms on their regions and subjective perception of peripherality. Drawing on ongoing field research and the functional characteristics of the agri-food value chain (AFVC), I identify six categories of firms: input suppliers, agricultural producers, food or beverage processors, dual-profile agri-food producers, wholesalers, and multinational branch plants. To focus on leading firms, the research prioritizes the largest employers and/or top performers by net sales revenue in 2023 and 2024, excluding farmers. Throughout the ongoing research, I also factored in the non-economic role of these firms in relation to local governments and civil communities.

The **theoretical framework** of this study is built upon the relationship between territorial embeddedness and peripherality, highlighting the multidimensional nature of both concepts. Often discussed as part of Global Value Chains (GVC) or Global Production Networks (GPN), territorial embeddedness suggests that a firm's success depends not only on corporate decisions or market conditions. Unlike many industrial GVCs characterized by high mobility, the AFVC is defined by a unique spatial fixity due to localized natural resources and biological processes. This inherent geographic dependency makes territorial embeddedness a structural necessity rather than a strategic choice. The endogenous development opportunities provided by the local, regional or national spaces where production occurs also matter. Parallel to this, while peripherality is traditionally viewed at the macro-level, it has also been successfully adapted to smaller administrative units, acknowledging that the perception of being peripheral is a lived reality for actors in everyday life. For practical reasons, this study focuses on how corporate actors at the sub-national level navigate the interplay between local

assets and subjective experiences within peripheral spatial structures, moving beyond purely economic indicators to include institutional perspectives and social aspects, specifically regarding employment quality and participation in local socio-economic initiatives.

The **geographical scope** of this study is the Mezőtúr and Szarvas districts. Although they belong to different counties (Jász-Nagykun-Szolnok and Békés), these regions are linked by Körös River in the heart of the Great Hungarian Plain. These regions possess a distinct educational and scientific heritage: agricultural engineering has been a featured element of Mezőtúr's local education, while Szarvas remains a nationally significant hub for irrigation and fisheries research. The economic profile of these two districts shows different levels of complexity in processing. While arable farming is dominant in both, Szarvas displays a more diverse production and processing structure (including dairy cattle and cheese processing, rice cultivation, fisheries, and poultry). In contrast, the Mezőtúr district is heavily oriented toward primary production. Although large-scale food processing is less prominent today – despite a historical legacy in the flour milling industry – Mezőtúr maintains a specialized role in rice processing. The strategic importance of the study area is further highlighted by the presence of strong local firms alongside leading multinational corporations such as Syngenta, and Pioneer (now Corteva). These firms act as crucial integrators, linking local primary production to global technological and market networks.

To assess territorial embeddedness, the study evaluates **five key dimensions** (Economic, Social, Institutional, Scientific-Educational, and Environmental-Infrastructural) through **methodological triangulation**: (1) Academic literature and locally authored scholarly monographs to provide both a theoretical framework and a deep understanding of the regional context. (2) Annual financial reports of the firms to track their economic performance and local investments. (3) Semi-structured interviews conducted with middle and top management of the firms, as well as the mayors and secondary school principals or teachers of the involved settlements.

The choice of qualitative methods was driven by practical necessity. One major difficulty in quantitative research is that Hungarian business demography statistics classify enterprises according to their registered headquarters. This makes it hard to identify firms that are active in our study area but registered elsewhere. Also, for companies with branch plants in these regions, the annual reports do not break down income figures by site. Furthermore, these reports often provide very little detail on how EU funds were used or how local developments are

progressing; in several cases, such information was entirely absent, which made a systematic quantitative comparison impossible.

Using these sources together helps to bridge the information gaps and overcome the data limits of each individual method. It also allows this ongoing research to explore factors that are hard to measure, such as how local actors navigate and perceive their position within peripheral spatial structures. The initial firms were selected based on their net sales and number of employees, as these are the primary indicators of their regional weight. However, as the research progressed, a snowball sampling method was also applied; this allowed me to include additional relevant firms that were identified through fieldwork.

To assess territorial embeddedness and the subjective perception of peripherality, the research evaluates the following **criteria within five key dimensions**:

- **Economic:** Business linkages (local/domestic/international) and market scope.
- **Social:** Firm-led social initiatives, support for local NGOs, schools, and sports clubs.
- **Institutional:** Quality of cooperation with municipal governments and educational administrations.
- **Scientific-Educational:** Presence and justification of dual training, internships, and educational partnerships.
- **Environmental-Infrastructural:** Adaptation to natural constraints (drought, soil conditions, epidemics) and the impact of road infrastructure and logistical bottlenecks.

The **results so far** reveal distinct patterns of territorial embeddedness and peripherality across the five investigated dimensions:

- **Economic:** While Mezőtúr district remains primarily focused on large-scale primary agricultural production, the Szarvas district exhibits a more diverse economic structure with varied value chains, including food processing and research-driven activities. Multinational branch plants in these regions serve both international (primarily focusing on Central and Eastern Europe) and domestic markets. For local firms, networking is driven by financial security and interpersonal trust rather than the mere local presence of suppliers. This leads to the construction of parallel supply networks, where global integrators – such as Syngenta, Corteva, Axiál, Cargill, Bunge, and Bonduelle – act as the primary partners, often overshadowing local sourcing opportunities.
- **Social:** The social responsibility practices of the investigated firms show mixed results. Both "passive" corporate behavior (anonymous sponsorship, fulfilling only tax obligations) and "active" engagement were equally common. Active firms not only provide financial support for local events but also participate in their preparation and contribute to the maintenance of dirt roads in the outskirts and drainage ditches, which are essential for their own operations and the local community.
- **Institutional:** In the Hungarian context, local governments and schools have lost much of their decision-making competence due to a strong centralization. Regardless of these

national processes, the agricultural (engineering) profile in the Mezőtúr district has completely disappeared: higher education ceased in 2010, and secondary vocational training in 2018. Although initiatives were made in Túrkeve to adapt these programs, they failed because of administrative hurdles. In contrast, the Szarvas local government and the Hungarian University of Agriculture and Life Sciences (MATE) have started a cooperation to launch new agricultural engineering programs and provide scholarships to revitalize local higher education.

- **Scientific-Educational:** Despite efforts to establish dual training, the specific seasonality of agriculture—with intense work in summer and minimal activity in winter—remains a structural barrier. Consequently, educational cooperation is mostly limited to office-based roles (HR, finance), while professional internships remain ad hoc with low student interest. Larger firms have adapted by developing internal, in-house training protocols for specialized operators.
- **Environmental-Infrastructural:** The heavy, difficult-to-cultivate meadow soils (Gleysols / Vertisols) make irrigation and specialized technology a structural necessity. Agricultural producers are particularly hard-hit by climate change: The droughts of 2022 and 2025 caused significant yield losses even in irrigated areas. This has triggered a shift in arable farming structure, with sunflower increasingly replacing (hybrid) corn as the primary crop. Logistically, primary producers rely on their partners' transport capacities, while food/beverage processing firms maintain their own fleets to mitigate the lack of rail freight capacity and the relative distance from the M4 and M44 main roads.

According to the results so far, the investigated regions show two distinct behaviours. Firms in the Mezőtúr district have become highly dependent on global input suppliers and large food/beverage corporations. In contrast, the Szarvas district has more diverse actors within the AFVCs, although these actors currently operate in parallel rather than cooperating with each other. Despite their nearness, firms in these regions lack tight connections, probably due to the inadequate direct roadway infrastructure between them. Recent economic literature has increasingly focused on the role of National Champions – firms capable of leading national economic growth. I argue that some of the analysed firms are strong enough to achieve this status. To become national leaders, they need to develop the capacity towards the higher value-added production, and direct government support via targeted policies (beyond the level of rhetoric). Even though the recent market conditions not so predictable, in my opinion there are good opportunities to achieve these goals. Finally, closer cooperation between Mezőtúr and Szarvas district could be a key driver in this process. Bridging the physical and institutional gaps between these two areas would allow these local advantages to transition from peripheral actors into more integrated production networks.

Keywords: peripherality, agri-food value chains, territorial embeddedness, spatial fixity

JEL: Q13, R11, R58, L66, O18