

Evolutionary trajectories of manufacturing firms in the rural Zlín Region of Czechia

Simona Šťastná*, Adam Pavlík

University of Ostrava, Faculty of Science, Department of Human Geography and Regional Development, Czechia

* Corresponding author: simona.stastna@osu.cz

ABSTRACT

The aim of this article is to identify the most important mechanisms of rural industrial development in the context of a highly industrialized peripheral region in Central Europe. We ask if the development of rural manufacturing firms is primarily based on the activity and skills of local entrepreneurs, or whether it is driven by commercial counter-urbanization or cost-motivated inflow of (foreign direct) investment from other regions. Empirical results are based on the case study of the highly industrialized peripheral Zlín Region in Czechia. We have conducted 26 interviews with the company managers in rural municipalities of the Zlín Region. The growth of rural manufacturing firms is path-dependent, usually based on pre-existing economic activities or skills in the same or technologically related local industries. Neither commercial counter-urbanization nor inflow of foreign direct investment played a major role in the development of manufacturing firms in rural municipalities of the Zlín Region.

KEYWORDS

rural regions; manufacturing firms; restructuring; path development; firm births

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1. Introduction

Particularly in the last four decades, rural regions in developed Western countries have experienced a broad diversification process of their economies. The economic structure of rural regions has been shifting from originally dominant production-based agriculture (Dinis 2006) to industry and services (Woods 2005) with a higher proportion of non-local economic linkages (Rumpel et al. 2011). These changes in rural regions are referred to as restructuring, which includes not only economic transformation, but also social change (Woods 2005).

Restructuring of economic activities may be associated with processes of diversification into related industries, upgrading of existing industries, or the emergence of completely new industries (Isaksen et al. 2019). Since the 1980s, there has been a spatial shift of manufacturing units in advanced countries (Hoggart and Paniagua 2001) from urban agglomerations to rural areas that offer lower production costs (Woods 2005). Western European trends show that while the importance of large cities for maintaining the international competitiveness of individual states is growing, up to 80% of national exports are industrial products from rural areas (Carey 2015).

Traditional rural industries linked to primary economic activities, such as the manufacturing of food, textiles, wood, and paper products are gradually supplemented with more technology-intensive manufacturing industries that are attracted by lower transportation costs and available workforce (Wiggins and Protector 2001). Companies that produce standardized products with simple inputs are often located in rural areas as well (Crone and Watts 2003). Compared to their urban counterparts, rural manufacturing firms are characterized by lower technological intensity, lower innovation activity, and higher sensitivity to the price-sensitive competition. Small and medium-sized enterprises predominate (Vaz, Morgan, and Nijkamp 2006), although the presence of large firms/branch plants in the manufacturing industry or standardized business services is not exceptional (Sonn and Lee 2012).

The relocation of manufacturing firms from cities to the countryside is spatially selective. First, manufacturing firms move to the metropolitan hinterland (commercial suburbanization) and in the next phases into the countryside (commercial counter-urbanization) (Bosworth and Finke 2019). These mechanisms are usually cost-motivated by an inflow of investment from elsewhere. The third mechanism we called as an endogenous mechanism and we describe it below.

The paper aims to assess the relevance of traditional hypotheses of rural industrialization (North 1998; Kalantiradis 2005) for the path development of manufacturing bases in Central European rural regions. The research questions are:

- 1) Which factors and mechanisms shaped the evolutionary trajectories of manufacturing firms in rural areas of the Zlín Region?
- 2) To what extent has the manufacturing development in rural areas of the Zlín region been driven by
 - a) endogenous sources and entrepreneurial activity of local actors origin,
 - b) relocation of production capacities from regional urban cores due to lack of land or other production factors in cities,
 - c) cost-oriented investments from other regions/states, or
 - d) commercial suburbanization followed by residential counter-urbanization.

We base our assumptions on a case study from the Zlín Region, which is characterized by a high degree of industrialization compared to other European regions, the highest share of manufacturing in the employment rate amongst all Czech regions, the second-highest share of manufacturing in employment in rural municipalities (Business Register 2017), diversified economy at the regional level and high density of small and medium-sized manufacturing enterprises in rural areas. Industry in the Zlín Region has historically developed in various ways: an exogenously-driven development (e.g. state-controlled relocation and development of the arms industry for strategic reasons) and since 1989 the inflow of foreign direct investment) and endogenously-driven development: e.g. the establishment of Baťa company and subsequent expansion of footwear from which other industries spun off. The Zlín Region, therefore, provides a lot of valuable material for the study of path development of rural manufacturing firms.

In the next section, we will present the factors and mechanisms of path development of manufacturing firms in the countryside. Then, we briefly characterize the restructuring of industry in Czechia and the Zlín Region to provide some context. The fourth section describes data sources and methods, while the fifth section empirical findings, including the company profiles. The sixth section discusses the findings of other authors, and the seventh provides a summary and implications.

2. Factors and mechanisms of path development of manufacturing firms in the countryside

A number of firms in rural areas are also established by extra-regional actors in various ways: foreign-direct investment, commercial suburbanization, counter-urbanization, or are based on externally acquired knowledge. Counter-urbanization means the development of the rural economy driven by immigration from urban areas (Píša 2020; Píša and Hruška 2019).

The essence of this process is a transformation of rural community through new exogenously led entrepreneurial opportunities associated with rural in-migrants (Bosworth and Finke 2019). It is also possible through the inflow of foreign investment multinational companies and it is often cost-motivated and locally disembedded (Perkmann 2006; Tripl et al. 2018). We can talk about *path importation* (see below for definition).

This process is also described by North (1998), who deals with five possible explanations of manufacturing and other non-agricultural activities relocation:

1. The hypothesis of residential preferences emphasizes the role of soft factors (Slach et al. 2013) such as housing, recreation possibilities, and natural environment, which attract future residents and founders of rural manufacturing companies. In this context, Píša (2020) and Píša and Hruška (2019) talk about the entrepreneurial migration (*counterurbanization*), where migrants are motivated by a countryside idyll.

The next four North's (1998) explanations are linked by cost-motivated inflow of investment:

2. The constrained locations hypothesis works with the presumption of a growing demand for land, as current industrial, automated, capital-intensive production requires increasingly larger areas that are more available in rural municipalities than in densely populated cities. This process is known as commercial suburbanization.
3. The filter-down hypothesis is based on the product life cycle theory (Vernon 1966) and explains rural industrialization by a firm's efforts to reduce their costs of standardized production. The relocation of production from urban to rural areas is typical rather for routine and less knowledge-intensive assembly activities (North 1998; Kalantaridis 2005).
4. The production cost hypothesis assumes that firms are trying to locate production in places with low land and labour costs (North 1998), i.e. in rural regions, among others. The remoteness of rural regions and limited external economies of scale offset low costs associated with lower wages and more affordable real estate (Kilkenny 2010).
5. The capital restructuring hypothesis emphasizes the importance of advanced technologies and models of production organization. These have made it possible to relocate parts of the production process from urban agglomerations to rural areas, where companies capitalize on lower personnel costs and weaker trade union organization of the labour force (North 1998). Firms benefit from the experience gained in the city, where they often have economic ties (Mayer et al. 2016) while taking advantage of rural production factors.

Exogenous mechanisms are important especially in regions with limited internal resources, small

economic base, narrow specialization: "thin regions" (Isaksen 2014). Entrepreneurs in these regions use local knowledge mainly for incremental innovations, while radical innovations are acquired mostly by extra-regional links (Mayer et al. 2016).

While exogenous mechanisms may affect rural manufacturing development significantly, rural firms are mostly established endogenously: by local entrepreneurs, their knowledge and experience, which was often gained in other local manufacturing firms in technologically related industries (Isaksen and Tripl 2017; Maskell Malmberg 1999). Mechanisms for the development of economic activities ("path development") in rural areas and non-metropolitan regions are, compared to metropolitan regions, much more significantly embedded in a historical development trajectory of regional economies, local institutions (Martin and Sunley 2006), and inherited industrial structure (Ženka et al. 2015). Therefore, diversification or upgrading of local economic structure and the development of new industries are often based on a combination of new and existing knowledge (Tripl et al. 2018), which refers to the history of industrial production in the region, including local technical education, workers' skills, and locally embedded informal "institutions" (Isaksen et al. 2019). These (often) locally unique pieces of knowledge can be then used by potential entrepreneurs when starting their own businesses (Furlan and Cainelli 2020). We are thus referring to the influence of tacit knowledge and skills that are unique and available in a specific region, which leads to the strengthening of local specialization (Maskell and Malmberg 2007) and path extension. Firms established as spin-offs (branching of existing firms) have a higher ability to react and orient themselves in the local market environment, both in terms of supply and demand, compared to firms established without a prior connection (Mayer et al. 2016).

Another endogenous factor in setting up businesses in the countryside is also the residence of the founder of new businesses (Isaksen 2014). Potential entrepreneurs set up new firms where they live and work (or close), drawing on existing local skills and social networks (Isaksen and Tripl 2017). We are referring to the concept of social capital, which includes social networks, contacts, civic norms, and values that represent intangible advantages formed by personal ties and links developed based on trust and long-term relationships (Pileček and Jančák 2010), such as informal relationships between suppliers, customers or local institutions. The advantages in the home region are related to the use of information from a familiar environment and established networks. In addition, family members and/or acquaintances are often recruited as employees, thus intersecting social and economic relationships (Cannarella and Piccioni 2011).

The above-mentioned development mechanisms are influenced by the conditions and specifics of

individual regions and may occur in different sectors or industries simultaneously (Isaksen 2014), however, they cannot be understood as continuous phases of the development of the industrial structure in the regions. The question is which mechanisms discussed above are the most common and which mechanisms most influence the current location and sectoral structure of the industry in rural municipalities. The table below simplifies the discussed mechanisms and processes in path development.

Tab. 1 Path development mechanisms.

Mechanism	Main processes
Path branching	This is the establishment of new economic activities/firms/industries through branching from existing local industrial specializations: either inside a firm or through a spin-off, establishment of a new firm. Changes in the economic structure are not significant, as new companies do business in the same or related industries as the original company.
Path extension	Continual development of existing industries, based on scale economies and incremental innovations. Overall, there is a small change in the regional economic structure, as the long-term continuity of the region's original specialization is evident.
Path upgrading	New production processes and technologies are being introduced into regional industries. There are development and accumulation of skills. As a result, there are new combinations of products or services with higher added value. Rather than the development of new industries, there is the strengthening of the competitiveness of existing ones.
Path diversification	Based on innovative combinations of existing and new (both local and external) knowledge, new technologically related industries are emerging.
Path creation	In the regional economy, a new sector is growing, for example, through the commercialization of scientific research activities, which are often the result of chance or accident. The formation and development of new industries in a region are conditioned by the availability and quality of local production factors.
Path importation	Localization of new industries in a region through the inflow of investment, qualified employees, or establishing collaboration with companies outside the region.

Sources: Author's own design, based on Isaksen et al. 2019; Gjelsvik and Trippel 2018; Isaksen et al. 2018; Grillitsch et al. 2016.

3. Historical development and restructuring of industry in the Zlín Region

Agricultural production prevailed in the region until the second half of the 19th century. The industrial structure in this period was influenced by physical and geographical conditions. On the one hand, there

were agriculture-related manufactories (confectioneries, distilleries), but also industries related to wood surpluses in mountainous areas (Bednář 1970). An important milestone was the establishment of the Baťa factory and its subsidiary plants in Otrokovice, Napajedla, and Chropyně (Kunc 2006), which helped to develop a specialization in the footwear industry. The footwear related industries such as the rubber industry and later the plastics industry later spun off. The current sectoral structure is also influenced by socialist industrialization when new companies were established in the region (e.g. Dyas in Uherský Ostroh). As a result of the expansion of existing armaments companies and due to the strategic location of the area (Česká Zbrojovka in Uherský Brod and Vsetín), the branches of this company were localized in the region. There were also some other branches of major companies active in the metalworking, plastics and electrical industries such as Avia Letňany – Let Kunovice, Autopal in Hluk, Agrostroj in Napajedla, Gumárny Zubří, Tesla in Valašské Meziříčí and Rožnov pod Radhoštěm (Kunc 2006; Bartoš 1982), and the chemical industry (relocation of Deza).

In the interwar period, there was a need to form industrial districts of cooperating firms in the above-mentioned industries, which were characterized by a very intensive division of labour at the regional level (for theoretical aspects of the process see Zoričák et al. 2021). Although in the socialist era there was a major change in the organization of industrial production (Rumpel et al. 2011) that weakened local and regional economic linkages, high spatial concentration of manufacturing firms in some industries sectors (especially in the metalworking and plastics industry) in the Zlín Region persisted and fundamentally influenced the development of rural manufacturing firms in the transformation period.

In the 1990s, the restructuring process began in Czechia. The period before 1989 was characterized by a relatively high employment rate in the agricultural sector, which was also due to non-agricultural activities of the so-called “associated production of unified agricultural cooperatives” and state-owned farms. These were mainly light industrial production activities or construction work. Total employment in agriculture reached up to 7% of the economically active population in the early 1990s. In the period of transformation after 1989, there was a reduction in agriculture associated with drop-in employment to one third under the same production (Bičík and Jančák 2005). There were changes in ownership relations with secondary and tertiary activities of so-called “associated production” starting to spin off (Jančák et al. 2019), which significantly affected today's economic structure in the countryside. It is a common practice that these established firms are still often located in the former premises of agricultural cooperatives (Hruška and Czapiewski 2015).

Not only Zlín Region, but all Czech rural regions are now one of the most industrialized regions in the European Union (Vaishar and Šťastná 2019), where manufacturing is significantly represented not only in regional hubs but also in rural communities (Figure 1). The most important industry in Czech rural regions is the manufacture of fabricated metal products (Figure 2),

which accounts for a higher share of employment in the rural municipalities of the Zlín Region than in the rural municipalities of Czechia. The specialization of the sectoral structure in administrative districts of municipalities with extended powers AD MEP) is expressed by the localization quotient. The values of the localization quotient can be found in Table 2.

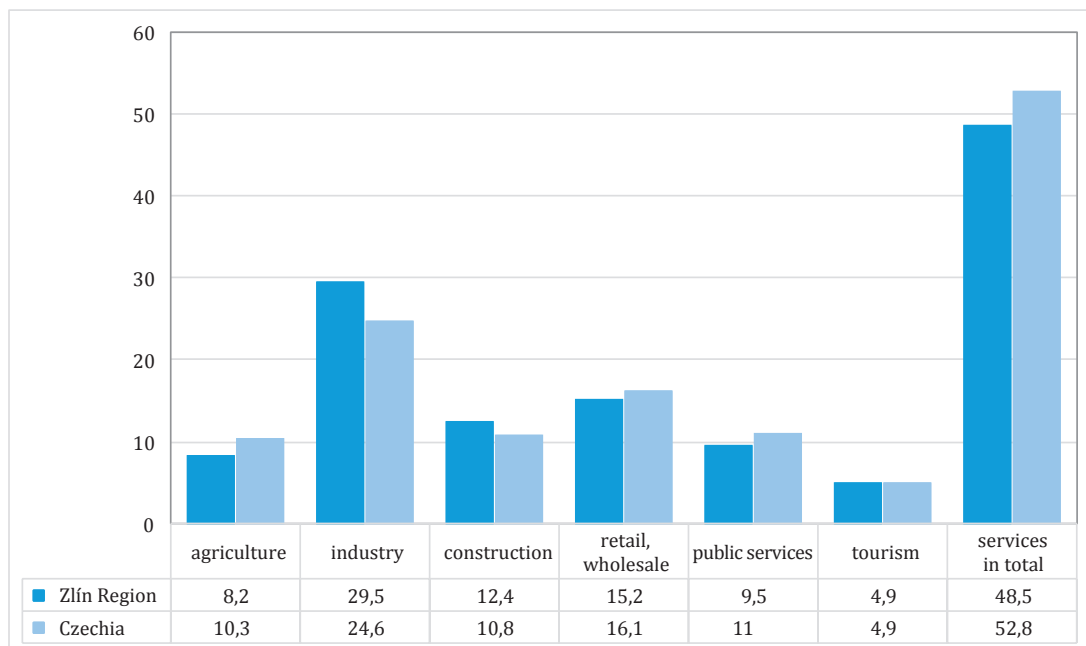


Fig. 1 Sectoral structure of employment in rural communities of Czechia and the Zlín Region in 2017 (%).

Source: Business Register 2017; Authors' own design.

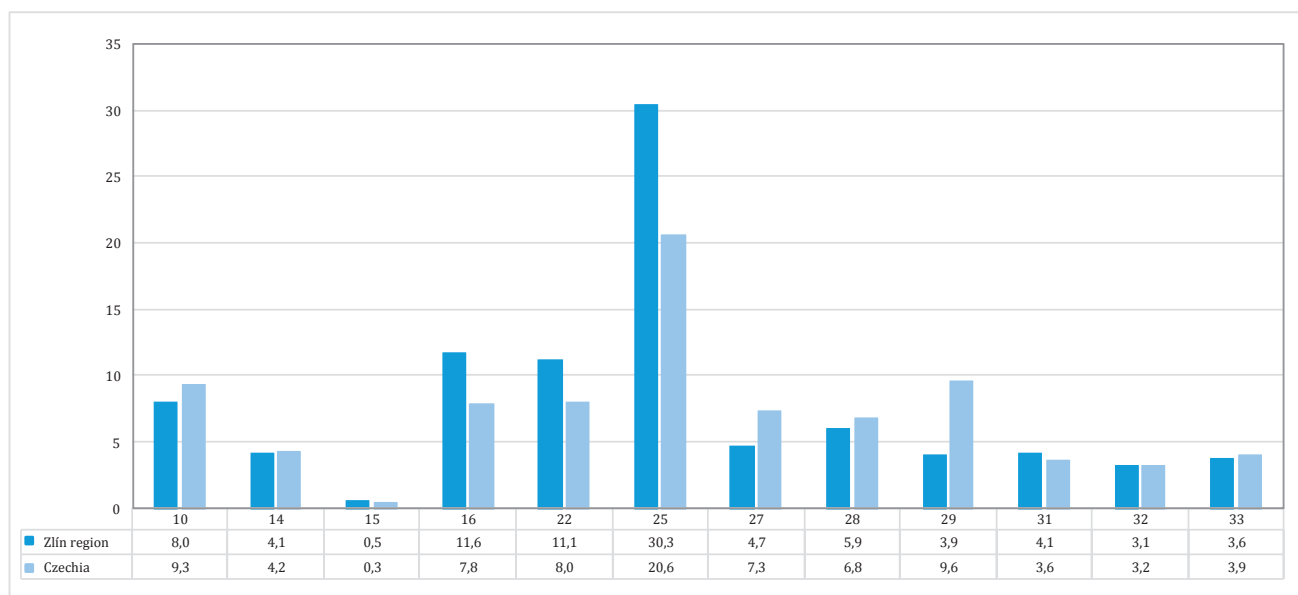


Fig. 2 Sectoral structure of employment in manufacturing in rural municipalities of Czechia and the Zlín Region in 2017 (%).

Source: Business Register; Authors' own design.

Note: An employment rate was calculated as the share of manufacturing in total industrial employment (CZ-NACE in the range of 10–33). Due to the negligible share of employment, the graph does not include sectors with employment below 3% in the Zlín Region. 10 – food-processing, 14 – textile, 15 – footwear, 16 – woodworking, 22 – plastics, 25 – metalworking, 27 – electrical, 28 – engineering, 29 – manufacture of motor vehicles, 31 – manufacture of furniture, 32 – other, 33 – repairs and mounting.

Tab. 2 Localization quotient (LQ) in rural areas of the Zlín Region (2017).

AD MEP	10	14	15	16	22	25	26	27	28	29	31	32	33	Other
Bystřice pod Hostýnem	Dark Blue	Light Blue										Dark Blue	Dark Blue	
Holešov		Light Blue												
Kroměříž				Light Blue	Light Blue	Light Blue								
Luhačovice									Light Blue					
Otrokovice		Light Blue				Dark Blue	Dark Blue	Dark Blue	Dark Blue					
Rožnov pod Radhoštěm		Light Blue										Light Blue		
Uherské Hradiště		Light Blue	Light Blue											
Uherský Brod						Dark Blue	Dark Blue	Dark Blue	Dark Blue					
Valašské Klobouky											Dark Blue			
Valašské Meziříčí														
Vizovice													Dark Blue	
Vsetín														
Zlín														

Source: Business Register, Authors' own calculation
 Note: LQ = 6.1 (maximum) (dark blue), LQ > 2 (blue), LQ = 1–1.99 (light blue), LQ < 1 (white); Other: It includes other industries according to NACE rev. 2.0.

The value of the localization quotient shows that almost all rural areas of the Zlín Region are the most specialized in the metalworking industry (NACE 25). Only the AD MEP Bystřice pod Hostýnem shows a low LQ value due to a high specialization in the food-processing industry and the AD MEP Luhačovice, which is a spa town with a high employment rate in services. Local industry is dominated by the production of machinery and equipment. The regions show a higher degree of specialization in traditional manufacturing industries, namely the textile industry (NACE 14), leather (NACE 15), and wood processing (NACE 16 and 31). The main reason is mostly the historical tradition of this business and physical and geographical conditions.

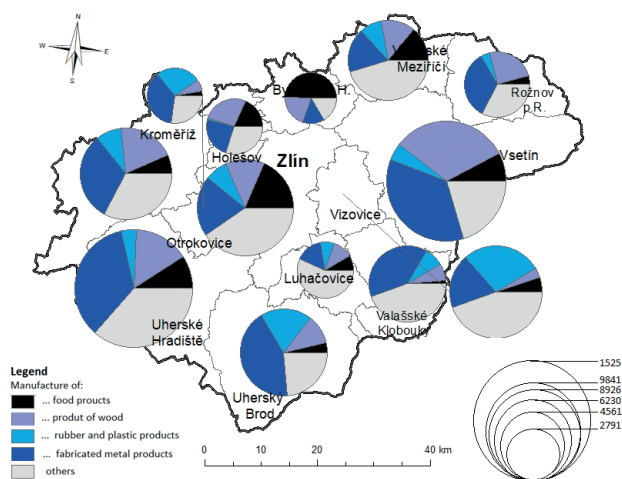


Fig. 3 Employment structure in rural communities of the Zlín Region (2017).
 Source: Authors' own design based on Business Register 2017.

4. Data and methods

To meet the aim of this paper, we selected rural municipalities of the Zlín Region, which were

determined based on a descriptive definition. The population criterion of 3,000 applied in the Act on Municipalities No. 128/2000 Coll., was used as an upper limit of the population size. Subsequently, rural municipalities were aggregated into AD MEPs. The Register of Economic Subjects from the Czech Statistical Office and the Business Register from the Ministry of Finance was used to identify firms in rural municipalities. The firms were selected according to the NACE rev. 2.0 classification, with the following defined categories: agriculture, incl. forestry and fishing, manufacturing, and services. The paper focuses on manufacturing, which was defined based on the same classification using codes in the range of 10–33. The rural manufacturing companies chosen as relevant were those that had manufacturing listed in the Business Register in the first place. To measure the degree of specialization of the structure, we constructed a localization quotient, i.e. the share of a particular industry in the region's employment divided by the share of the same in employment in the national economy, i.e. Czechia. A value is higher than 1 means a higher specialization in the particular than the state (Hamalová et al. 1997).

Further, we used a semi-structured interview with the company representatives as a key source of primary data. In the period 2016–2019, we conducted a total of 26 personal interviews. In the first part, we asked about the basic identification characteristics and it is the main source for this research:

- the year of birth,
- mode of the establishment (a newly established firm, a spin-off or branching from a local firm (same or different industry), a spin-off and branching from an external firm (same or different industry); a subsidiary of a company from district town or another locality)
- main production portfolio and their innovation and modification,
- number of employees,
- the firm's educational structure.

The second part of the questions focused on geographical aspects of production, i.e. what hierarchical level their supplier-customer ties reach and also where their biggest competitors are located. We distinguished several hierarchical levels – district rural/urban part, region, Central Europe, Europe, and the world. The last part of the interview focused on the company's sources of competitiveness and innovation activities. If necessary, we asked for an explanation. Many answers thus arose from a non-standardized interview with the respondent.

We used intentional sampling to select the firms for an interview. The aim was not to cover all manufacturing industries but to include traditional industries in which the Zlín Region has long specialized, such as the metalworking, food-processing, and leather industries. Our intention was not to obtain a representative sample that would allow the implementation of

inference statistical methods and characterize the distribution of statistical attributes in the population of rural industrial companies. We have tried to contribute to the understanding of the mechanism of establishment and development of industrial companies in rural areas by revealing the relations in the territory and empirically observed trajectories.

Company names have been changed for research purposes. The distribution of the surveyed companies is shown in Figure 4. The methods of descriptive statistics and subsequently the qualitative content analysis of the interviews (see Elo et al. 2014) were used. From a methodological aspect, the paper presents the so-called “theory-confirming case study” (for the classical typology of case studies see Lijphart 1971). In the Central European context, the Zlín Region can be understood as a ‘most-likely case’ (Seawnght and Gerring 2008) of a region with a high potential for the endogenous establishment and development of the rural industry. The hypothesis is therefore the dominance of an endogenous way of establishment of rural manufacturing firms.

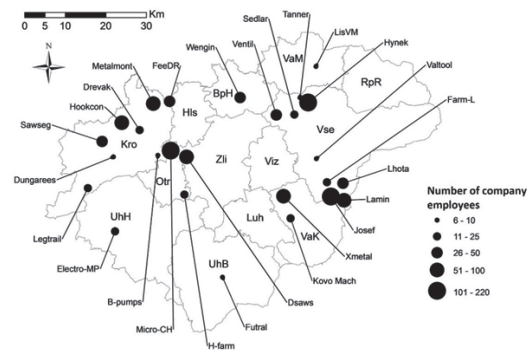


Fig. 4 Distribution of interviewed firms in the Zlín Region.

Source: Authors’ own design based on the questionnaire survey.

The next section is separated into two parts. The first is a short introduction to the questionnaires firm, while the second is the core of this article, providing empirical results and summarizes the interview. Finally, we compare our results with initial expectations and answer the research questions.

Tab. 3 Brief introduction of the companies that participated in the questionnaire survey.

Company name	Year of establishment	NACE	Main products	Company establishment
Valtool	2014	25	components for the automotive industry	The company was established by former employees of a nearby large, industrial firm active in the same industry. It started to produce the product of the original firm, which had it only as a sideline activity. Based on the knowledge and know-how, this company made it its main product and acquired customers thanks to their previous contacts.
Farm-L	1995	15	dairy products	A traditional food-processing company that builds upon an agricultural tradition in the local community and dates back to the 1960s, when the first collective farm was established. It was created thanks to agricultural transformation, i.e. redemption of ownership interests.
Dungarees	2003	14	work clothes, textiles for hospitals, packaging for weapons	The manufacture of work clothes was newly started in the place of the company owner’s residence (in the basement of a family home) without any employees. In 2003, it moved to a nearby building of a food-processing firm, which was in a desolate technical condition.
B-pump	2000		repair and sale of pumps	The company was established from associated production in the area of the former collective farm in Hostišová near Zlín, where it rented a property. Subsequently, the owners purchased their production facility in Kvasice.
Legtrail	1997	25	parts of trailers and semi-trailers made of iron	The location and establishment of the company were influenced by the available premises – the founders used the abandoned former collective farm premises. This company was established in the locality without a direct former connection.
FeeDR	1992	10	compound feed	The company was established in 1992 from the original mixer and feed dryer in the production site of the collective farm in Němčice. The owner started his business with one employee and gradually reconstructed the agricultural building in a desolate condition.
LisVM	2007	25	spare parts for press machines	The company was established in the current location thanks to Prague investors (including the current owner). At first, it was located in the owner’s residence, but due to unsatisfactory manufacturing conditions, he moved production to an unused building, which previously served a retail business. Thanks to his machines and equipment, the firm can flexibly respond to demand and adjust a manufacturing program.
Josef	1990	10	meat and sausage processing	This company was established as a new business in 1990 (natural person) based on many years of experience of the founder in the field. Thanks to high demand, there has been an increase in capacity and employment and an expansion of production associated with meat and sausages. The company is now a legal entity.

Company name	Year of establishment	NACE	Main products	Company establishment
Lamin	1991	22	plastics, composites, plastic covers for machines	This medium-sized company was established in direct connection to a local company, which has been active in the region since 1985 and produced plastic parts for rail vehicles. This company was bought by the current company in 1991 and since then it has expanded it with its technologies.
Ventil	2000	28	fans and covers for machines in the textile and food-processing industry	The company was established in the locality without prior connection. Thanks to the expansion of production, there has also been an increase in the number of employees and the construction of a new assembly hall in recent years. This company's product is so unique that it has no competition even on a global level.
Hynek	1989	25	painted surfaces of industrial products	It is a medium-sized enterprise in Czech ownership. The company was founded in 1989 by a former employee of paint shops in industrial companies, who already unofficially earned extra money by painting older cars during socialism. The company has expanded rapidly in the last decade, increased the number of employees fivefold, and has become the largest custom paint shop in Czechia.
H-farm	2005	20	medical devices	The company was created by selling an existing company in the same industry. However, it was originally a natural person. The company is engaged in the production of medical devices and there has only been an expansion of the offer, not a change in production.
Futral	1993		weapons, ammunition	The company was established in the locality without any previous connection and its production is focused on the manufacture of backpacks and cases.
Sedlar	1992	15	saddlery products, upholstered components for the automotive industry	The company was established in 1992 by nine saddlers working in a collective farm in the associated production of work gloves, which has a forty-year tradition in the local community. At that time, the company had 170 employees (80 in manufacturing of gloves), however, the company was gradually forced to reduce the number of employees mainly due to intense price-based competition from India and other Asian countries.
Drevak	1999	16	joinery production	The company was newly established in the given locality based on previous experience in the field and tends to serve the local market.
KovoMach	2014	25	metalworking	This company was originally established as a natural person, the founder of which was a former employee of an ammunition factory. The company has changed its form into a limited liability company in 2014 and its production remains the same.
Mealmont	1995	25	assembly halls	This company is a spin-off from a nearby engineering company where the founder had previously worked. Today, the company has two production facilities.
Sawseg	2005	25	segment saws	The company has a direct connection to the production, which has been in the locality since 1948. Thanks to the privatization of a former state enterprise, two independent, highly specialized companies have been established, which are located in the same production facilities and cooperate until today. Sawseg is part of a German-Dutch company.
Lhota	1951	15	meat production	It is another agricultural company from the region, which was founded without a direct former connection already in 1951. In the past, they were only engaged in primary production.
Tanner	1992	15	processing of bovine skins	The company has no history in the rural community of Jablůnka; it builds upon the tradition of tanning in the region. The main products are not primarily intended for the end consumer, as it manufactures semi-finished products for shoe, bag, belt, and haberdashery companies.
Electro-MP	2009	27	public lighting	The company was newly founded by local entrepreneurs. The main localization factor was the knowledge of the region.
Hookcon	2000	28	container carriers	The company's history began in 1990 when it was spun off from a local company in the same industry. In 1995, a major decision was made, by which the sales and service organization dealing with the sale, assembly, and service of superstructures were transformed into a manufacturer of truck superstructures specializing in container carriers and dumpers.
Wengin	2007	25	components for production lines	The company was established as completely new in the region. Important localization factors were available premises, proximity to suppliers, and available qualified workforce.

Company name	Year of establishment	NACE	Main products	Company establishment
Dsaws	1992	25	saw blades for wood	This company was founded as completely new in the place of the founder's residence, where it manufactures components for the production of another company. It adapts the products to the customer's specifications and has its own development center.
Xmetal	1992	28	spare parts for trainsets	The company was founded thanks to the available production facilities as completely new to the location.
Micro-CH	1993	22	microtubes for electronic industry	This company was established as completely new in the given location thanks to the proximity to suppliers and suitable transport and technical infrastructure. This company is part of the global manufacturer of the same name based in the USA.

5. Results

The first part of the result is basic information about firms to provide context about the companies surveyed. A total of 26 manufacturing firms in the rural areas of the Zlín Region were contacted. They were mostly small and medium-sized enterprises. Only three of the companies we addressed had more than 100 employees. Overall, these are long-existing companies, as evidenced by their age – they were established mainly in the first half of the 1990s. The interviewed firms do not have a problem with employee turnover and in the monitored period, they felt a shortage of manpower. These firms are embedded in the region and employ (mostly less educated) people from the surrounding area. The more employees a firm has, the higher the level of education, especially in firm management.

The product portfolio consists mostly of low value-added and labour-intensive products, based on traditional industries. Most companies changed their production portfolio during their existence, which in most cases were incremental innovations of existing production. The questionnaire survey shows that companies have more suppliers and customers and are not dependent on one key supplier and customer and thus this factor was not a major localization factor in the establishment of the company. In terms of production volume, the most significant purchases and sales were at the regional level (59%).

The questionnaire survey shows that such companies do not perceive any competition at the local level. Over the last five years, the interviewed firms have applied the most process innovations (e.g. purchases of new machines, obtaining a quality certificate) and product innovations. Firms also stated that there is a lack of demand for new products, often due to stable customers of their standardized products.

In the second part of our paper, we will deal in more detail with the origin of rural manufacturing firms. Almost all firms show some historical connection, whether the education typical for the region or the experience gained due to previous employment. The second important mechanism of the firm establishment was the independence of associated productions, i.e. by spinning off the existing part of the production.

The most numerous groups are companies established by spin-offs from existing local or regional companies (46% of the contacted firms). This is in line with the path branching development mechanism. This method of establishment is typical for the first half of the 1990s. Respondents answered most frequently that companies were established due to their spin-off in the same industry. In most cases, these were processes within an ongoing optimization of the firm, namely gaining independence by partial divisions of firms and associated agricultural production of collective farms. The direct continuity of agricultural cooperatives was referred to by the three firms contacted, especially in the food-processing industry, where the owners either purchased ownership shares and continued in the same production or after the stabilization of transformation processes continued the original manufacturing program.

A key factor in establishing firms is previous employment because respondents stated that the firm's founder was previously employed in the same or similar economic activity. Thanks to this, there is a path extension development mechanism in the rural areas of the Zlín Region. This trend was confirmed mainly by respondents from the metalworking industry. Thanks to previous employment in large engineering companies in the region, five respondents started their own business. It was often originally a business of natural persons, which was later transformed into a larger firm. The connection to the *long tradition of production and knowledge in the region* was reflected in two firms dealing with leather processing. The last example of the firm establishment thanks to previous knowledge and its good example of path upgrading is a paintshop firm, whose founder was trained in the field and then officially worked in industrial paint shops, and at the same time earned extra money as a painter of older vehicles. After quitting industrial paint shops, he first started his automobile paint shop (entrepreneur), from which a small paint shop developed, followed by the largest custom paint shop in Czechia, which processes components for the world's leading car manufacturers and aircraft manufacturers. This firm has been in operation as a legal entity since 2008, when it was taken over by

the owner's son who has expanded production, giving jobs to more people.

In the case of a spin-off of firms from another industry (19%), a connection to tacit local knowledge was again demonstrated, as well as a spin-off from the same industry. This refers to an experience gained from the *associated production* of collective farms when the firm later changed its production portfolio. A firm engaged in the production of upholstered components for a major Czech company, which was founded by nine saddlers, can illustrate this type of experience. The original portfolio involved leather gloves, but due to competition from Asian countries, the production program needed to change. The original dominant glove production was reduced to specialize in the production of components, using the previous technological equipment and know-how.

The connection to an external firm in another industry was demonstrated by only one of the interviewed companies when the owner started the production of weapons and textile machines after the bankrupt company and their current production represents only piece metalworking.

Firms that have been newly established in the region (31%) can be divided into two groups. The first group is firms active in the food-processing industry, which have been operating in the region for a long time and have a well-established tradition. The second group of firms was established around 2000 and manufactures specific industrial products (e.g. components for trailers and semi-trailers, components for production lines, parts for press machines). The reason for the establishment of these firms was available land, often brownfields of collective farms, knowledge of the region and the current regional activity of entrepreneurs, or the proximity of their permanent residence. The firm establishment due to the proximity of a supplier was proven in only one firm active in the electrical industry.

In the sample of contacted companies, no firm was identified that would be established by opening a branch or by building a plant-based on the inflow of foreign direct investment. Neither the commercial counter-urbanization nor the cost-motivated FDI-driven relocation of companies is not a relevant mechanism for rural areas in the Zlín region. Local rural manufacturing firms are therefore exclusively domestic. An exception may be two companies – a metalworking company that was established thanks to the capital from another Czech region (the capital city of Prague) and originally a Czech company producing segment saws, which was bought by a German-Dutch company.

The availability of land and buildings in a given locality shows as a key localization factor in the countryside. Most firms use the premises of former collective farms; some have reconstructed them, creating small industrial zones. Another important factor and the reason for the company establishment in rural

areas was the origin of the company owner or the existence of a close customer. Half of the companies have an owner from the Zlín Region.

6. Discussion

Empirical findings have shown that the classical hypotheses of rural industrialization according to North (1998) are not very relevant for the explanation of the establishment and development of rural manufacturing farms in the Zlín Region, and it is so for several reasons. The hypotheses are rooted in the American context and are tied to a broader concept of the countryside, which also includes non-metropolitan towns, not just rural communities. They primarily explain the relocation of industrial firms from large metropolitan cities to a wide hinterland, and not from small/medium-sized towns to rural communities, which is the case of the Zlín Region. The hypotheses mainly affect general trends of the relocation of industrial companies from urban agglomerations to rural regions and have a limited ability to capture individual trajectories of the development of individual firms.

In the Zlín Region (and probably most of the Czech and Central European non-metropolitan regions), counter-urbanization has not yet played a very important role in the establishment of rural manufacturing firms (unlike the USA or Western European countries – see Bosworth and Finke 2019). The results of our empirical survey have not shown that rural manufacturing firms are established by immigrants from urban agglomerations who move to the countryside for a better-quality environment and amenities. According to Píša's research (2020), the peripheral areas of the Zlín Region are among the business-growing municipalities that are declining in terms of migration. The inner rural areas of the Zlín Region have a positive migration balance and a favorable balance of housing construction, but there is no development of business activities. This is confirmed by the findings of Ženka et al. (2021), who identified the Zlín Region as a highly industrialized export periphery.

We also did not find any support for the related hypotheses of capital restructuring (see Kalantaridis 2005): the surveyed rural enterprises focus on custom production of a craft nature rather than on large-scale production of standardized products. The closest is the hypothesis of constrained locations and production cost (North 1998): available real estate was an important localization factor, although it cannot be said that companies in the cities and towns of the Zlín Region would face unavailability or high real estate prices. Although many rural regions in Czechia can be simply described as regions with a significant position of production plants of multinational corporations (branch plant regions) according to the typology of rural economies by Woods (2013), for the Zlín

Region this characteristic is due to the strong position of domestic SMEs (and despite the presence of some major international plants in urban areas) not very relevant.

However, the main reason for the limited relevance of the above hypotheses is the fact that most of the surveyed firms were established endogenously (in line with Maskell, Malberg's assumptions 1999): they were started by local entrepreneurs as spin-offs from existing local businesses in the same or related industries or also without any connection to the previous activity in the locality. The most relevant mechanisms of rural manufacturing development are path extension and path branching from local sources. The location of newly-established firms in the Zlín Region was significantly affected by the company founder's residence. The importance of the owner's residence also coincides with Isaksen's conclusions (2014). Tacit local knowledge had a major influence on the establishment of new companies, which is in line with the findings of Egedy et al. (2015) and Isaksen et al. (2019). At the same time, the authors identified personal relationships and networks as a fundamental mechanism in the development of (rural) entrepreneurial activities, as also evidenced by our findings.

The results confirm the statement of Ženka et al. (2017) on the key role of diversification in technologically related to the development of non-metropolitan, in this case, rural regions. However, due to a low level of cooperation and mutual learning between companies at the local level and many other barriers to innovation activities typical of the Central European context (Květoň and Blažek 2018), the branching process is not accompanied by the development of completely new industries, products, and technologies. The inertia of the structure and product spectrum of firms from the socialist period is very strong, which is in line with the results of the Slach research from the peripheral Jeseník microregion (see Slach in Rumpel et al. 2011). This is true for most Central European rural and non-metropolitan regions (Ženka et al. 2015).

In terms of path development mechanisms, this case study mainly deals with a path extension (Isaksen et al. 2019), because in the development of new industrial activities we can only observe a combination of existing knowledge using incremental innovations, which is consistent with Isaksen's conclusions (2014). There are no significant internal changes in the economic structure, as the newly established firms build on the history and knowledge of the region (in agreement with Eder and Trippel 2019).

7. Conclusion

Based on a case study of 26 firms from the Zlín Region, the paper aimed to empirically contribute to the study

of the establishment and development of manufacturing firms in rural communities. The endogenous method of the establishment of companies, which were for the most part founded by local entrepreneurs, completely prevails. In most cases, a strong link to the previous specialization of a rural municipality or a regional center was demonstrated. Firms were often established in direct connection with traditional enterprises established during the socialist or interwar period, some of which were set up by former employees who used knowledge and contacts acquired there. As a rule, manufacturing firms built on previous rural economic activities in the locality or the surrounding area, whereas the frequent method of the establishment was the spin-off of associated industrial production from the activities of former collective farms. Based on these findings, we can conclude that path branching and path extension were the most important mechanism of rural manufacturing development in the Zlín Region. Path upgrading is very limited and depends mostly on the capabilities of individual companies. We did not find any significant effect of commercial counter-urbanization or foreign capital. Firms that were newly established in the region without prior connection had a highly specialized portfolio of products, focusing on market niches.

Finally, we can summarize that there are few external impulses in rural municipalities in the Zlín Region that can bring fundamental innovations starting the development of complete news. The topic for further research is to carry out a similar type of research in other types of regions: metropolitan hinterlands of large cities and old industrial regions.

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