



Silesian University in Opava
School of Business Administration in Karvina

REGIONAL INNOVATION APPROACH: A CASE OF THE MORAVIAN-SILESIA REGION

**Ing. Pavel Adámek, Ph.D., Ing. Šárka Čemerková, Ph.D., Ing. Martin Klepek,
Ing. Jarmila Šebestová, Ph.D., RNDr. Ing. Roman Šperka, Ph.D.**

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Department of Business Economics and Management



Content of presentation



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Purpose of the paper

- To assess the current **regional-of-the-art of regional innovation monitor** in the Moravian-Silesian Region.
- The **research in innovative activities** in the region's companies - more detailed analysis through primary research was aimed at **identifying the types of innovations in selected sectors** and extended by the **application business lifecycle criteria** of subjects.



Trends in the Regional Innovation System

- The region's economic performance is further negatively influenced by ineffective institutions, obsolete and low-capacity infrastructure, low labour market efficiency and especially low level of business sophistication.
- Despite the modernisation of many companies, the innovation activities in the business sector are rather below-average.
- Nevertheless, innovation performance of the SMEs sector is significantly better than the general innovation performance of the whole business sector.
- Three challenges - focused on areas:
 1. **Restructuring of the manufacturing sector from its specialisation in traditional low-tech and environmentally problematic industries to more flexible and higher value added industries** based on innovation;
 2. **Development of a research infrastructure for co-operation between private enterprises and local universities;** and
 3. **Reduction of dependence on RTDI (Research, Technological Development & Innovation) support programmes and other measures implemented at the national level.**



Methodology steps

- The questionnaire survey was conducted with owners and managers of small and medium sized businesses (194 companies in the final phase) in the Moravian-Silesian Region.
- Research was conducted in order to determine:
 - Identification of the type of innovation by sector and by business lifecycle.
 - Finding the interaction between the sector according to the type of business and innovation.
- The instrument was validated through the assessment of scale reliability, construct validation and un-dimensionality of the research constructs.
- As a supporting analysis, cross-tabs were used to identify significant and non-significant values.



Research findings and results

- The relationship between the type of innovation and the sector was not confirmed for type of innovation: product, organisational change, marketing and strategy.
- Especially in the area of process and technology there was identified the significance (Cramer's $V = 0.535$, Sig.=0.026, confidence level 0.95).

Type of innovation by sector

Type of innovation	Agriculture	Industrial production	Building industry	Public service	Business	Services	Total
Product	0,5%	12,7%	4,2%	0,0%	17,0%	2,2%	36,6%
Process and technology	0,5%	6,7%	4,6%	1,0%	5,7%	9,9%	28,4%
Organisational change	0,5%	2,1%	3,6%	1,5%	7,7%	6,8%	22,2%
Marketing	0,5%	0,5%	0,5%	0,0%	9,8%	6,7%	18,0%
Strategy	0,0%	0,5%	1,5%	0,5%	6,2%	2,1%	10,8%



Research findings and results

- We have identified most of the innovations being at the stage of "growth" and "decline". These phases are dominating for companies to develop initiatives and efforts in innovation, especially in the phase of "growth" which is represented by product innovation (20.3%), process and technology and organizational changes in the representation of almost 15%.
- Considerable findings we have arrived at the stage of "stagnation, maturity" when we expected a much higher innovation activities than they have been identified (process and technology 5.5%, product and marketing 2.2%).

Type of innovation by business lifecycle

Type of innovation	Growth	Stagnation, Maturity	Decline	Crisis	Destruction and decrease	Total
Product	20,3%	2,2%	14,3%	0,0%	1%	37,9%
Process and technology	14,8%	5,5%	6,6%	0,0%	0%	26,9%
Organisational change	14,3%	1,1%	6,1%	0,5%	1,1%	23,1%
Marketing	9,9%	2,2%	4,9%	0,0%	0%	17,0%
Strategy	6,1%	0,0%	3,8%	0,5%	0%	10,4%



Research findings and results

- The relationship between the type of innovation and the business life cycle was not confirmed for type of innovation: product, organisational change, and marketing.
- Significant weak dependence we found for strategy (Cramer's $V = 0.250$, Sig.=0.022, confidence level 0.95) and less importance to process and technology (Cramer's $V = 0.236$, Sig.=0.039, confidence level 0.95).
- The most innovations are used in are of product, process and technology and organisational change. According to sector allocation are the most used the innovation in business, services and industrial production.



Conclusions

- The positive development of the regional innovation system and strengthening of the competitiveness are evident and result from the involvement of regional stakeholders in the implementation of the regional innovation strategy.
- The **core of the key challenges** still remains crucial for the economic development in the near future:
 - economic restructuring and technological modernisation;
 - high quality human resources in sciences and technologies;
 - sustainability of large research infrastructure of universities and research organisations; and governance of the regional innovation system.
- **Technical innovations** were implemented only in 12% of companies (the second worst share among the Czech regions). The industrial companies reached only 83% of the national level in **implementation of product innovation** (the worst share in the Czech Republic), and 89% in case of **process innovation**.
- The most innovations are used in area - **product, process and technology, and organisational change**. According to sector allocation are the most used the innovation in business, services and industrial production



Conclusions – Future Opportunities and Orientations

- The **national programmes have significantly higher impacts on the cultivation** of the regional innovation system and setting up of new research and innovation infrastructure.
- The key challenges can be formulated in the **economic restructuring and technological modernisation, high quality human resources in sciences and technologies, sustainability of large research infrastructure of universities and research organisations, and governance of the regional innovation system.**
- The high **dependency of the regional economy on the manufacturing sector**, which has many negative environmental and social consequences.
- The firms should **be motivated to modernise** their technologies, innovate and collaborate with regional universities and research organisations to strengthen their competitiveness and improve their position in global value chains.





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HAVE A NICE AND SUCCESSFUL DAY



Pavel Adámek
adamek@opf.slu.cz

Department of Business Economics and Management

