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SOME INDICATORS OF SMALL FIRM INNOVATION ACTIVITIES

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This paper presents an approach that can be used to provide rigorous analysis of small firm innovation activity for comparison with other regions and countries. It is clear that complex and qualitative interrelations within an innovative Belarus national environment cannot be measured in a simple sense (Schumpeter, 1934). So, it is therefore necessary to combine several indicators for innovation to form an aggregate measure (Grupp, 2006). In order to reach a broader audience it is necessary to develop simple measures and this is well established. A more complete compilation of such simple indicators has been undertaken by Freudenberg (2003). This report identifies those indicators of innovation performance that are relevant to small firm policy which enables comparison of innovation activity between regions/countries.

In order to develop innovation performance indicators of relevance to small firms there are two principal stages. The first stage is developing a framework for selecting and placing indicators in three performance areas according to i) basic research and the production of new knowledge, ii) links between public and private research and iii) levels of industrial innovation (OECD, 2001). The second stage concerning the selection of variables and indicators involves investigation of the three performance areas outlined in stage 1. The core components include the generation of new knowledge (involving variables such as business researchers in the labour force), industry-science linkages (patents and publications), and industrial innovation (business researchers in the labour force, patents and new products and processes) (Freudenberg, 2003).

On our opinion the analysis of the innovation activities of enterprise must base on the following:

1. The analysis is performed on the basis of the specified indicators rating.
2. The analysis is carried out by groups of enterprise belonging to the same type of business activities (sector, segment) and the same size (in our case - small enterprise).
3. The variables are derived from Internet free databases of small firms.

In our opinion the following indicators can be determined to measure innovation performance of a concrete firm:

- Ratio of sales of new products to total sales;
- Research departments available;
- Publications in most industry-relevant scientific disciplines;
- Patents or patent applications.

Table 1 shows an example of the analysis of small firms innovation activities in comparison with other regions and countries - two companies from Vitebsk (Belarus), i.e. Solo entity "Polymerconstruction" (website - <http://www.polymercon.ru/>) and JV LLC "Fortex-Water Technologies" (Website <http://www.fortex.by/>), and a company from the United States (State of Michigan) - Corporation "Pure water works, Inc." (Website <http://www.purewaterworks.biz/>).

Table 1 – Comparative analysis of innovation activities of several small firms

Innovation Performance Indicator	Solo entity "Polymerconstruction"»		JV LLC "Fortex-Water Technologies"		Corporation "Pure water works, Inc."		Notes
	value of the indicator	rating (position)	value of the indicator	rating (position)	value of the indicator	rating (position)	
Ratio of sales of new products to total sales	0	0	0	0	0	0	No data on the network
Research departments available	True	1	False	2	False	2	
Publications in most industry-relevant scientific disciplines	7	1	0	3	5	2	
Patents or patent applications.	2	1	0	2	0	2	
Total, points		3		7		6	

Source: *work of the author*

Thus, a more innovative is the activity of the Solo entity "Polymerconstruction".

References

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