

Episode of Entrepreneurship as a part of a human life time

Business demography analysis, which is a new type of research in the field of enterprises analysis, is widely used in Europe. Business demography is a part of *Applied demography*. This research was started in 1982 by Population Association of America which constituted Committee on Business Demography. Since that time this research is developing¹. Demographic analysis, covering research on processes in human population, can be adopted to the analysis of population of enterprises. In business demography enterprise (mostly entrepreneur) is the research object. Whereas processes characteristic of the population of enterprises such as the birth process, death process and population dynamics are the subject of this analysis. Just like in typical demography, business demography analysis explains processes taking place in the population of enterprises using macro and micro determinants. Most of newly born enterprises (above 90%) are sole-traders (self-employment). Being entrepreneur is a part of human life course. As this episode can be analyzed in the context of micro (demographic characteristics of entrepreneurs) and macro factors (basic macro indicators) influencing the success of the business.

The development of enterprises and entrepreneurs creates new possibilities of employment. The support of entrepreneurship needs research such as business demography but in the context of dynamics. The increase in this research field raises the demand for databases consisting of data on newly established enterprises (births) and enterprises exiting market (deaths) and time of their activity on the market (survival). This type of information is crucial for the development of a good policy that will support the survival of enterprises. At the same time the supply of such information is not sufficient. There is still a lack of consistent and valid data. The analysis of the birth and death rates is a starting point for a further analysis and research on stimulants of new enterprises establishment, barriers that enterprises report at the very early stage of their activity as well as the basis for the analysis of reasons for bankruptcy and liquidation of enterprises. There is an urgent need of new type of surveys. One type is retrospective survey and the other one is panel surveys (more time consuming).

Recently the interest in business demography in Poland has increased significantly. Some very interesting data on small enterprises in Poland was collected by CSO in the panel survey conducted since 2001. This survey is based on a sample of small enterprises. *“The results obtained from the CSO panel surveys on new enterprises form one of the elements of a basis which can then be used to satisfy the demand of international institutions for statistical data. The monitoring of new enterprises being established, including the results achieved from their activities, as well as the factors influencing their further growth, fall within the scope of interest of both the EU and the OECD. Information in this area constitutes an element of business demography, which is one of the modules of the detailed structural statistics of enterprises. Furthermore, as part of the Entrepreneurship Indicators Programme, the OECD, in cooperation with Eurostat, has developed the principles and methodology applied in defining the entrepreneurship indicators. The results of these surveys allow comparisons of the level of competitiveness in particular countries, as well as of the influence exerted by new entities on its growth. They further provide the knowledge necessary to determine the entrepreneurship indicators and the development directions of particular economy sectors, including the most innovative ones, as well as the level of productivity achieved in these sectors.”*²

Basic results of this survey are summarized below with special focus on demographic characteristics of entrepreneurs:

1. In 2005 in REGON 211.11 thousand small enterprises (employing fewer than 50 people) were registered (including 208.9 thousand enterprises employing fewer than 10 people). The dominant group consisted of enterprises of private individuals (94.4% of the whole sample). Only one out of four employers declared that they were going to employ new workers.

¹ Siegel, 2001; Morrison, Abrahamse 1996; Pol, Richard, 1997; Voss, 1997; Yusuf, Swanson, 2010.

² *Warunki powstania i działania oraz perspektywy rozwojowe polskich przedsiębiorstw powstałych w latach 2005-2009 (Creation and operation conditions, development prospects of polish enterprises established in the years 2006-2010)*, CSO, Warsaw 2011, p 24.

2. Majority of new enterprises were completely new units on the market (94.1%). The starting activity was financed with own funds (83.9%), with family and friends funds (6.2%) and bank loans (4.0%).

3. New companies were statistically more often established by men than women (56.8% and 43.2%). The frequency of new companies set up by men was higher than the mean frequency in construction (87.65%), transportation (76.3%), industry (74.4%), real estate and corporate services (61.3%). Women more frequently established new companies in other services (75.6%), education (63.4%), healthcare (62.4%), trade (52.5%) and financial services (52.3%).

4. Majority of people starting new businesses are under 39 years old (66.2%), including 37.2% under the age of 37. The youngest businessmen most frequently started businesses in education (55.5%), transportation (42.9%) and other services (42.1%), and businessmen at the age of 30-39 most frequently opened businesses in healthcare and industry (38.7%, 36.4%). The oldest people - 60 years old and more - accounted for only 3.3% of the population of businessmen opening new firms.

5. New businessmen in majority completed secondary education (41.9%) and higher education (35%). People with secondary education dominated among such activities as hotels and restaurants (70.2%) and trade (53.6%), while people with higher education dominated in such activities as healthcare (86.9%), education (80.7%), financial services (63.1%) and real estate and corporate services (56.1%).

6. Before starting a new business 38.1% of people worked as white-collar workers. For 35.7% people own company was the first place of work or they were unemployed before.

The majority of new enterprises (56.6%), declared that following their start they were working only on the local market, whereas only 6.75% entered international markets. Most of newly born enterprises finished their first year of activity with positive financial results. In fact, only one out of five companies recorded losses. In addition, one third of owners decided to start investments. In order to finance investments private funds were used in 69.5% cases and bank loans in 22.4%. Every other owner did not report any problems with production or product sales. Demand barriers and difficulties were reported by one out of three businessmen and only one out of twenty reported supply barriers. Businessmen reporting both types of barriers were in the most difficult situation.

More interesting data was collected in the fifth panel of survey covering enterprises born in 2001 that survived to the year 2006. Only smallest firms were selected (fewer than 10 workers) for the analyses from the following sectors: industry, construction, trade, hotels and restaurants, transportation and real estate and corporate services. Among 209.4 thousand newly born enterprises registered in 2001 in REGON, in 2006 almost 59 thousand were still active (28.1% of population). This frequency was much higher for legal companies than for private individuals. Higher frequency was also observed for companies employing staff (every other enterprise was active). Units active after 5 years are mostly businesses of private individuals (92.7% compared to 95.8% at the beginning). Units without any hired workers after 5 years amounted to 53.8% in comparison to 74.1% at the start. In the 5th year of activity the most frequent were trade firms.

Retrospective survey

To cover need for more detailed data for entrepreneurs there was a retrospective survey conducted in one of the regions in Poland. The population covered by the survey was database of enterprises in REGON registered in 2006 in Malopolska voivodeship (as of 31.12.2006). The base of sampling was REGON register limited to: enterprises sector, number of workers below 50 people, legal persons, non-legal persons and sole traders. The final sample amounted 2384 enterprises (168 small and 2216 micro). The unit of survey was an enterprise and the interview (phone) was realized with the person representing the company: mainly owner or representative of the owner. The hypothesis of coherence between empirical and theoretical distributions according to legal form, Sector (PKD) and employment was verified confirming the representativeness of the sample. Final sample amounted 1077 enterprises registered in 2006 in REGON register in Malopolska voivodeship. Among them 667 enterprises (61,93%) were still active (as of 31.12.2012). 5 year survival rate for small and micro enterprises reported by CSP for the cross-country sample is much lower 33-35% (generalized on Poland) ³.

³ Share of active enterprises in 2010 among enterprises registered in 2005 based on: *Warunki powstania i działania oraz perspektywy rozwojowe polskich przedsiębiorstw powstałych w latach 2005-2009 (Creation and operation conditions, development prospects of polish enterprises established in the years 2006-2010)*, CSO, Warsaw 2011.

Only in 11 cases the change of main owner was reported. The detailed analysis were focused only on the first main owner (especially in 11 cases where the respondent was not convinced about the choice and reported more than two owners). In most cases the main owner was reported as the main owner from the start of the business, in 20 cases the owner started his function later but there is no information about the previous owner.

In 1/3 all enterprises the main owner was a woman, in 58% cases a man and the rest of enterprises were companies without the main owner (see table 1). More than 42% enterprises with female owner was liquidated and this share in case of male ownership was lower and amounted 36,8%. In 60% of enterprises the owner was younger than 35 years old and in 20% of enterprises the owner was younger than 25 years old at the moment of the start of the business in 2006 (see table 2).

Table 1. Main owner by gender

Demographic characteristic of the main owner, sex	Is an enterprise still active?		all	percent
	no	yes		
no apply	5	68	73	6,98%
male	225	386	611	58,41%
female	154	208	362	34,61%
all	384	662	1046	100,0%
Frequency missing = 31				

Source: Own calculations based on results of retrospective survey of enterprises survival.

Table 2. Main owner by year of birth

Demographic characteristic of the main owner, year of birth	Is an enterprise still active?		all	percent
	no	yes		
no apply	5	68	73	7,07%
1928-39	4	4	8	0,77%
1941-50	18	30	48	4,65%
1951-60	36	72	108	10,46%
1961-70	69	111	180	17,44%
1971-80	142	259	401	38,87%
1981-90	104	110	214	20,74%
all	378	654	1032	100,0%
Frequency missing = 45				

Source: Own calculations based on results of retrospective survey of enterprises survival.

Main owners are mostly people with at least secondary level of education (67,56%). 32,72% of owners declared tertiary level of education (see table 3). Only 12% of owners were unemployed before starting their own business which means that the influence of the market push factor was not significant (see table 4).

Table 3. Main owner by education level

Demographic characteristic of the main owner, education level	Is an enterprise still active?		all	percent
	no	yes		
no apply	5	68	73	7,05%
primary	14	13	27	2,61%
vocational	102	134	236	22,78%
secondary technical	83	138	221	21,33%
secondary other	57	66	123	11,87%
tertiary	111	228	339	32,72%
other, post-secondary	10	7	17	1,64%
all	382	654	1036	100,0%
Frequency missing = 41				

Source: Own calculations based on results of retrospective survey of enterprises survival.

Table 4. Main owner by previous employment

Demographic characteristic of the main owner, previous employment	Is an enterprise still active?		all	percent
	no	yes		
no apply	5	68	73	7,45%
farmer	20	16	36	3,67%
craftsman	33	39	72	7,35%
engineering	12	38	50	5,10%
seller	52	68	120	12,24%
white collar	42	79	121	12,35%
manager	26	50	76	7,76%
studying	48	38	86	8,78%
unemployed	59	59	118	12,04%
other	76	152	228	23,27%
all	373	607	980	100,0%
Frequency missing = 97				

Source: Own calculations based on results of retrospective survey of enterprises survival.

In 60% of cases the activity of the enterprise takes place in the same place as the residence. Also in 60% of cases the employment in the own enterprise is the main source of maintenance of the main owner.

The evaluation of the situation and conditions helping or disturbing the enterprises' development was focused on the environment and barriers existing on the market. 40% of enterprises did not invest in its first year of activity. Almost 48% of enterprises form investing group used their own funds, only, only 9,25% used credit loans or subventions. In subsequent years the share of non-investing entrepreneurs slightly increased but the changes in the structure of financing were rather small.

Half of entrepreneurs (52,69%) did not reported any barriers in sales of goods and services (see table 5). In subsequent years the share of enterprises that did not reported barriers decreased slightly. The most important was the first year because this was the main driver of being on the market. 26% of enterprises reported too high competition on the market, other barriers were not significant.

Table 5. Difficulties in selling own goods or services reported by entrepreneurs in the first year of activity

What was the main reason of those difficulties in selling own goods and services? (2007)	Is an enterprise still active?		all	percent
	no	yes		
suspended or still not active	12	5	17	1,66%
no difficulties	148	390	538	52,69%
sources owned by customers are not adequate to their needs	17	24	41	4,02%
too high competition	126	140	266	26,05%
competing companies cut their prices	10	27	37	3,63%
enterprise is not sufficiently known on the market	21	51	72	7,05%
other difficulties	31	19	50	4,90%
all	365	656	1021	100,0%
Frequency missing = 56				

Source: Own calculations based on results of retrospective survey of enterprises survival.

Work is still in progress! I will apply Kaplan-Meier survival functions for univariate analysis and Cox regression model for multivariate analysis only for sole-traders. I will compare my results with EU database basic indicators.