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## Family, Friends, and Money—What Makes an Entrepreneur? Analysis of Data from Poland, 1993–2013

*Abstract:* Since entrepreneurship plays an important role in economy, especially in post-communist countries, it draws attention of researchers in the social sciences. Different determinants of becoming an entrepreneur have been already described, including background characteristics, personal motivations and attitudes, and liquid assets. This paper examines the role of social resources—family and friends with entrepreneurial experience—as well as financial resources, in shaping future entrepreneur in Poland in an advanced stage of economic transition to a market economy. The analyses are based on the Polish Panel Survey POLPAN, focusing on the period 1993–2013. The results show that originating from an entrepreneurial family has a paramount importance on running a company in the future. Also the fact of being surrounded by entrepreneurial friends in 1993 and being able of acquiring even a modest investment capital at that time are significant for becoming an entrepreneur 5, 10, 15 or 20 years later. The analyses of combined effects of independent variables show that social resources influence career choices much stronger than potential financial resources. A person who had an entrepreneurial father and was surrounded by entrepreneurial friends in 1993 might have been even six times more likely to become an entrepreneur in the course of the next two decades; the effect of financial resources is weaker.

*Keywords:* entrepreneurship, transformation, social networks, Polish Panel Survey POLPAN, Poland

### Introduction

It is generally agreed that entrepreneurship has a positive influence on economic growth of a country: it boosts creation of employment and promotes development and expansion of innovation (e.g. [Van Praag and Versloot 2007](#)). In post-communist economies private companies played an especially significant role by providing people with jobs and consumer goods, adding to the overall welfare of the countries undergoing transformation processes ([McMillan and Woodruff 2002](#)). In Poland, the proliferation of small companies in 1990s resulted from newly introduced laws on economic activity,<sup>1</sup> which liberalized and facilitated creating new enterprises ([Wilson, Adams 1994](#)). The new legislation enabled the fast developing private sector to provide jobs to those previously employed in state-owned enterprises, and add to the overall growth of the economy (e.g. [Gardawski 2001](#); [Jackson, Klich, and Poznańska 2005](#); [Skąpska 2002](#)).

What makes people take the risk running their own company? Various explanations can be found in literature. Many studies focus on psychological traits and attitudes, such as risk-tolerance (e.g. [Kirkwood 2009](#); [Xu and Ruef 2004](#); [Vereshchagina 2009](#)), need of achieve-

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<sup>1</sup> Law on Economic Activity (1988 Dz.U. No. 41, item 324); Law on the Equality of the Private Sector (1988, Dz.U. No. 41, item 324); Act on Privatization of State-Owned Enterprises (1990, Dz.U. No. 51, item 298).

ment (e.g. Hanges and Locke 2004), self-efficacy (e.g. Boyd and Voziis 1994), or a need for independence (Blanchflower and Oswald 1998). Other individual determinants analysed by entrepreneurship researchers included the availability of liquid assets (e.g. Blanchflower and Oswald 1998), gender (e.g. Renzulli, Aldrich, and Moody 2000), and the role of parents (e.g. Lindquist, Sol, and Van Praag 2015; White, Thornhill, and Hampson 2007). In studies of post-communist countries an important research question concerned the pre-transformation position, especially the case of *nomenklatura* and its role in shaping the new capitalist economy (e.g. Rona-Tas 1994; Staniszkis 1991).

In Poland entrepreneurs are considered to be among the winners of the transformation processes (e.g. see Gardawski 2001; Heyns 2005; Słomczyński, Janicka, Tomescu-Dubrow, and Shabad 2007). Even in the times of communism the situation of so called “private initiative” was relatively good: despite numerous restrictions limiting (or even threatening) their economic activities, those who managed to run private businesses were financially better off than many other occupational groups. Entrepreneurship did not provide, however, a prestigious position, which by some researchers is considered an interesting case of status inconsistency (Domański 1995; Jasiński 2004).

After the fall of communism many people attempted to seize the opportunity of opening their own businesses: by the end of 1989 more than 16 thousand new enterprises were established (Wilson and Adams 1994), and in a couple of years after the introduction of market economy the proportion of private entrepreneurs within the working population doubled (Białecki and Domański 1995).

Studies of Polish entrepreneurship at the times of transformation took into account the effect of belonging to *nomenklatura* (e.g. Staniszkis 1991; Wesółowski 1995; Domański 2000; Mach and Słomczyński 1997), and the attitudes towards privatization or economic values (e.g. Heyns 1996; Osborn 2007). Mobility studies, in which we find entrepreneurs as an occupational category important for the new social stratification, analysed the level of inheritance of this category from fathers to sons, confirming its salience throughout the early stages of economic transformation (e.g. Domański 2004). More recent studies examine also the influence of social networks for Polish entrepreneurs and prove their positive impact on both the choice of entrepreneurial career (Osborn and Słomczyński 2005; Słomczyński and Tomescu-Dubrow 2005) and entrepreneurial activity (Gardawski 2013).

Putting the individual intellectual and psychological characteristics, as well as political attitudes and connections aside, three major categories of determinants pushing people to become entrepreneurs are certainly worth analysing. As Ronald S. Burt (1995) argues, every player enters the market with three different capitals: the most obvious is the financial one, accompanied by human capital (understood as education, skills, experience and other individual characteristics), and relationships with other actors, *i.e.* social capital. In the context of entrepreneurship, social capital can be understood as “media through which actors gain access to a variety of resources held by other actors” (Hoang and Yi 2015). Interpersonal networks not only contribute to building legitimacy and reputation of new business ventures, but they are also crucial for exchange of knowledge and information concerning business opportunities. They can also contribute to obtaining necessary financial capital (Sengupta 2010). Kim and Aldrich (2005) argued that it is the strongest and most trustwor-

thy relationships that provide the most reliable resources and are characterized by more reciprocity.

The purpose of this paper is to analyse how social capital and financial resources, both situated in the past, influence the chances of becoming an entrepreneur in the future. In particular, I examine the impact of having entrepreneurs among close relatives, especially fathers, and among friends (as declared in 1993) on the chances of becoming an entrepreneur in 1998–2013. I will also analyse how the possibility of obtaining a certain amount of money declared in 1993 influenced the chances of running own business at a later time. Human capital (education) is controlled.

My analyses take into changes in time. I use the Polish Panel Study POLPAN data from years 1993–2013 which include, among many other things, information on respondents' occupations, families and financial situation. The panel aspect of the study makes it possible to observe effects delayed in time, which can lead to conclusions concerning causal effects of determinants.

This paper focuses on entrepreneurs defined in specific terms. In economic studies researchers often emphasize on the aspect of innovation which was for Schumpeter the very essence of entrepreneurship (Schumpeter 2003). Others take into account only large firm owners or, on the contrary, include in their analysis also people who are self-employed but do not employ other people (e.g. Gartner 1988; Dawson and Henley 2012; Kirkwood 2009). For the purpose of my analysis I define entrepreneurs as people who declare that they are firm owners, co-owners, or lease-holders. In surveys conducted on samples in range of five thousand or less, the probability of catching large-scale employers is very small. On the other end of the spectrum of firm-size, I decided to exclude those who are simply self-employee since they form a separate category, quite different from business owners (Słomczyński, Janicka, Irina Tomesu-Dubrow, and Shabad 2007). In addition, a large number of self-employed was “forced” to assume such position due to various labour market constrains.

Thus, in this study I assume that *entrepreneurs* = *employers*, independently of the number of people employed. I do not put an arbitrary minimum number of employees in order not to exclude the entrepreneurs running the smallest companies. Currently more than 99% of Polish firms are Small or Medium-Sized companies, most of them employing less than 9 employees (Polish Ministry of Development 2016).

### Theoretical Background and Hypotheses

Studies concerning the entry into the class of entrepreneurs in post-communist countries often emphasized the mechanisms of political power convergence and the role of *nomenklatura* cadres in creating new private enterprises (e.g. Rona-Tas 1994) and business elites (Jasiecki 2000). This is visible in most attempts at systematization of the entrepreneurs' recruitment processes in Polish transformation. However, in fact it can be argued that it was a negligible factor in creation of small and medium-sized firms (Domański 2000; Osborn and Słomczyński 2005). Henryk Domański presents other possible ways of becoming an entrepreneur, such as taking over of an existing family business, opening a small workshop

or a selling stand by an artisan or a factory worker, or opening a business based on technological expertise by a university graduate (Domański 1994). A similar classification was described by Włodzimierz Wesółowski (1995): apart from transition of resources available to those previously in power, or a transition from a managerial position in a state-owned enterprise to a private company, companies were created based on personal energy and inventive thinking of individuals.

Juliusz Gardawski (2001) applies an interesting metaphor to the description of some ways of entry to the class of entrepreneurs: taking over of the hardware (tangible resources) and software (contacts and expertise) by those who were on higher positions in state-owned enterprises at the end of communism. He differentiates those paths from authentic “founding privatisation” (“*prywatyzacja założycielska*”) which meant establishing new private entities, often very modest, such as workshops or small shops. He reminds that in some cases those small-scale entrepreneurs were forced to act on the new capitalist market by drastic changes on the job market. A reminder of this negative factor (as compared to a willingness to open a business because of a need for independence or achievement) can also be found in Grażyna Skąpska’s (2002) analysis of Polish entrepreneurs. She also describes how different individual and social resources, as well as “non-rational factors”—such as commitment, need for freedom and motivation for independence—determine the entry into this occupational group.

Jerzy Sobczak (2002) points out to the importance of the family background for entrepreneurial choices, which might have a two-fold impact: both as a continuing family tradition providing a model of a career, or as a social capital and source of possible support. In their analysis of recruitment to the entrepreneurial class in 1949–1993, Słomczyński and Osborn (1997) concluded that the inheritance of this social status significantly decreased in time and that the overall distribution of family background of those who became entrepreneurs in the initial phase of transformation (1989–1993) was similar to that of the rest of Polish population at that time. However, they also confirmed that having family business history before 1988 increased the odds of being an entrepreneur in 1993 (Osborn and Słomczyński 2005). International studies also point out to the significance of family in forming future entrepreneurs. Some researchers emphasized the role of genetics (Shane, Nicolaou, Cherkas, Hunkin, and Spector 2008), but most agree that family plays an important role because it is the primary base of early socialization processes and role-modelling (e.g. Lindquist, Sol, and Van Praag 2015; White, Thornhill, and Hampson 2007). Additional explanation of the importance of family is the possibility of intergenerational transfer of wealth, either in the form of inheritance or financial assistance for beginning entrepreneurs.

In this paper I assume that family and friends play an important role in developing motivation to become an entrepreneur. I also assume that networks of entrepreneurial friends contribute to an informal transfer of knowledge which might be helpful at all stages of becoming an entrepreneur. They might also provide mutual support, organizational or financial, which not only facilitates running a company, but also can lower the risks associated with being a firm owner. Thus, I will attempt to verify what extent originating from an entrepreneurial family and being surrounded by entrepreneurial environment in 1993 had a positive impact on becoming an entrepreneur at later stages of economic transformation.

*I hypothesize that it significantly increased the odds of becoming an entrepreneur in the future. My null hypothesis is that entrepreneurial family and friends have no statistically significant influence on respondents' future choice of entrepreneurial career.*

The role of financial capital can be considered crucial in starting running a private business. According to a suggestion attributed to the Polish Prime Minister in 1991, Jan Krzysztof Bielecki, in order to become a businessperson “you have to steal the first million” (Gołębiowski and Zagórski 2001). Some studies suggest, however, that in order to open a small or medium-sized enterprise in 1990's Poland, most entrepreneurs relied on modest sums saved by themselves or loaned by friends or family members (Skąpska 2002). In my study I will also analyse the influence of the possibility of obtaining investment capital (potential financial resources) in 1993 on becoming an entrepreneur in Poland at a later time. *I hypothesize that being able to gather a certain, relatively small amount of money in the early years of economic transformation increased the odds of becoming an entrepreneur at later time. Again, I will test the null hypothesis that the possibility of obtaining money in time  $t$  has no impact on becoming an entrepreneur in time  $t + n$ .*

Although the influence of both friends and family has been included in some analyses of the entrepreneurship in Poland (e.g. Słomczyński and Osborn 2005; Słomczyński and Tomescu 2005), the relative weight of their impact is yet to be examined. An important innovation of my study is the introduction of the financial context into the analyses, which seems to have been under-researched. Contrasting the influence of family traditions with more direct impact of father's occupation, friends-entrepreneurs, and financial resources, as well as combined effects of these factors allow us to increase our knowledge about entrepreneurial careers in post-communist Poland.

## Data and Measures

For the purpose of my analysis I use the Polish Panel Survey POLPAN data.<sup>2</sup> Since 1988 surveys have been conducted every 5 years on a large representative sample of adult Polish citizens. POLPAN respondents were asked detailed questions concerning a variety of issues, including background characteristics, their professional careers, social networks, and financial resources. The panel aspect of the study allows to observe changes in the course of life of respondents.

In this paper I will focus on information gathered after the change of economic system from centrally planned economy to capitalism, i.e. data from five waves of POLPAN study conducted in 1993–2013. This subsample consists of panel respondents who were interviewed in 1993 and at least one of the four consecutive waves. Those criteria mean that the subsample does not include the youngest POLPAN respondents who did not participate in the 1993 wave.

The *dependent variable* used in my analysis is dichotomous, with 1 = respondent declared him/herself as entrepreneur in any wave between 1998 and 2013 but not in 1993, and

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<sup>2</sup> Detailed information concerning POLPAN study can be found at [www.polpan.org](http://www.polpan.org); see also Słomczyński, Tomescu-Dubrow, and Dubrow (2015).

0 = otherwise.<sup>3</sup> Those who were entrepreneurs in 1993 were excluded from the analysis in order to be able to examine how the respondents situation observed in 1993 influence their changes in future career.

In each wave there are between 73–121 entrepreneurs defined in the above-mentioned way (excluding those who already owned businesses in 1993), which constitutes between 7.6–9.9% of all working respondents (between 1356–856 in different waves).

Main characteristics of the group of POLPAN entrepreneurs correspond with those described in other Polish studies (e.g. Gardawski 2013; Jaźwińska 2000). There are no major discrepancies in the gender balance: in POLPAN study the percentage of women entrepreneurs is between 30%–42% in different waves. The proportion of entrepreneurs with higher education increases throughout waves, reaching 43% in 2013, which is approximate to the level measured by Gardawski's (2013) study. POLPAN entrepreneurs are, on the average, older than in other studies since in POLPAN the age distribution is significantly influenced by the panel feature of that study. In general, an exact comparison of the composition of entrepreneurs between studies is very difficult due to specific sampling procedures and questions asked during interviews.

My *independent variables* include four dichotomous variables concerning: (1) whether respondent's family ran a private business between 1939–1989; (2) whether respondent's father ran a private business when respondent was 14 years old; (3) whether respondent had friends running own companies in 1993; and (4) whether respondent was able to easily obtain a certain amount of money in 1993. In addition, for all statistical analyses, I will use respondent's gender (male = 1, female = 0), education in 1993 (in years), age in 1993 (centered and squared due to its curvilinear relationship with dependent variable) as *control variables*. Independently of the fact whether the effects of these control variables are statistically significant, as very important socio-demographic characteristics they need to be included in all analyses in this study.

## Results

### Family Background

POLPAN database offers information not only about respondent fathers' jobs, but also whether or not respondent family had entrepreneurial traditions going back to times prior to the Second World War. In 1993 respondents of POLPAN study were asked: *Did any of your close relatives—we mean here grandparents, parents, siblings and children—run for at least a year a business, firm or an enterprise during the period from 1938 to 1988?* This question encompasses not only a relatively wide range of family members, but also a very long period of time. Using POLPAN data Kazimierz Słomczyński and Elizabeth Osborn (2005) confirmed that having such family history before 1988 made it more likely to be an actual entrepreneur in 1993. Does this relation hold for later periods? It does. A simple

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<sup>3</sup> As indicated in the introduction “entrepreneurs” are defined as persons who declare having their own business and employ at least one person; thus, the large category of self-employed is excluded from the operational definition of “entrepreneur.”

correlation test shows that the positive answer given to the same question in 1993 is positively correlated with being an entrepreneur at later time (Pearson's  $r = 0.138$ ,  $p = 0.000$ ,  $N = 741$ ).

Logistic regression analysis, presented in **Table 1**—Model I, allows us to see the strength of the influence of having entrepreneurial family history on the odds of becoming an entrepreneur while controlling basic characteristics such as gender, education, and age (centred at mean and squared due to its non-linear effect on dependent variable). Being male and having more years of education increased the chances of choosing entrepreneurial career. The strength of the model in terms of explained variation is not very high (Pseudo  $R^2 = 0.100$ ), but the whole model is statistically significant ( $p < 0.0001$ ).<sup>4</sup> We can see that having firm owners in family between 1938–1988 increases the odds of running a company in the future by more than 2 times ( $p < 0.005$ ).

Table 1

**Logistic Regression of Being an Entrepreneur in 1998–2013 on Having Entrepreneurial Family History, Controlling for Gender, Age and Education: Alternative Models**

Independent Variables	Coefficients	Robust S.E.	Odds Ratio
Model I: Family business experience 1939–1989			
Family business experience 1939–1989	0.740**	0.247	2.096**
Gender (1 = male)	0.450*	0.213	1.568*
Education in 1993 (in years)	0.122***	0.328	1.129***
Age centered	0.149	0.001	1.161
Age squared	-0.002	0.133	0.997
Constant	1.798	18.900	18.900
Fit Statistics: Wald $\chi^2(5) = 50.50$ ; Prob > $\chi^2 = 0.000$ ; Pseudo $R^2 = 0.100$			
Model II: Entrepreneurial father when respondent was 14 years old			
Having Entrepreneurial Father	1.223**	0.387	3.396**
Gender (1 = Male)	0.473*	0.214	1.605*
Education in 1993 (in years)	0.134***	0.032	1.143***
Age centered	0.159	-0.115	1.173
Age squared	-0.003	0.001	0.997
Constant	2.054	3.136	7.805
Fit Statistics:	Wald $\chi^2(5) = 52.34$ ;	Prob > $\chi^2 = 0.000$ ;	Pseudo $R^2 = 0.100$

\*\*\*  $p < 0.001$ ; \*\*  $p < 0.01$ ; \*  $p < 0.05$ ; N = 741.

It is worthwhile asking why the fact that grandparents, parents or siblings ran businesses in the past increases the chances of becoming an entrepreneur so significantly. The explanations found in literature pertains to genetics, socialization processes and possible transfer of accumulated capital. At the same time, all these three aspects can be represented by parents alone, who influence their children's lives more directly. An important discussion concerns whether it is the "nature" (genes) or "nurture" (upbringing) that makes

<sup>4</sup> I use McFadden's  $R^2$ , the most popular of the many alternative measures of pseudo R-squared. McFadden's  $R^2$  is a ratio of the two log likelihoods: that for the intercept model and that for the full model. The log likelihood of the intercept model is treated as a total sum of squares while the log likelihood of the full model is treated as the sum of squared errors. In this sense, McFadden's  $R^2$  provides an analogy for OLS  $R^2$  in terms of variability (variance). For explanation, see Long (1997) and Freese and Long (2006).

children of entrepreneurs more likely to run their own businesses in their adult lives (e.g. Shane, Nicolaou, Cherkas, Hunkin, and Spector 2008; White, Thornhill, and Hampson 2007; Lindquist, Sol, and Van Praag 2015). Regardless of different answers to this question, it has been proved that having entrepreneurial parents significantly increases the likelihood of running a company.

POLPAN database includes information on respondents' fathers' occupation for all waves. I aggregated respondents' answers from waves 1993–2013, in order to create a dichotomous variable in which 1 = respondent's father owned a company when respondent was 14 years old, 0 = otherwise. As Table 1—Model II shows the fact of having an entrepreneurial father increases the odds of success by 3.4 times ( $p < 0.005$ ), much more than the fact of having entrepreneurial family in general. This might be explained by the fact that parents' status and behaviour have a much more direct impact on shaping future careers. Grandparents usually play a less significant role in children's upbringing than fathers. Moreover, a causality can be traced between a respondent occupation choices and his/her father's jobs. The strength of the model remains unchanged (Pseudo  $R^2 = 0.100$ ), which points to the fact that family alone, regardless its indicators, cannot be considered as the sole determinant of entrepreneurial careers.

### Friends

It is worthwhile to consider adding another important element of social environment influencing our career choices—friends. In 1993 POLPAN respondents were asked: *Among your close friends is there a person who is an owner or co-owner of a firm or runs a business outside farming?* The correlation between having entrepreneurial friends in 1993 and being an entrepreneur at a later time is significantly stronger than the one with having entrepreneurial family background or fathers ( $r = 0.187$ ,  $p = 0.000$ ,  $N = 706$ ). In a separate logistic regression model (Table 2—Model I) the fact of having entrepreneurial friends increases the odds of running own business by 2.2 times. This effect is slightly stronger than the one of having entrepreneurial family history (Odds Ratio = 2.096), but much weaker than having an entrepreneurial father (Odds Ratio = 3.396). Adding variable having entrepreneurial friends to the logistic regression model with having entrepreneurial father (Table 2—Model II) shows, perhaps not surprisingly, that the former increases the chances of becoming an entrepreneur weaker than the latter (Odds Ratio = 2.150 as compared to 2.794) but the effects of both variables are significant.

The strong relation between entrepreneurs might be considered as an obvious sign of homophily: it is natural that people have more contact with those who are more similar to them (McPherson et al. 2001). However, friends who were owners can be seen as a certain kind of social capital which facilitates joining of the entrepreneurial group in the future. Słomczyński and Tomescu-Dubrow (2005) point to three possible explanations of the importance of having entrepreneurial friends for becoming an entrepreneur: they can be a source of useful information, facilitate hiring proper employees, and provide informal help or training necessary at early stages of running of a private business.

The difference in strength of importance in favour of fathers can be explained by the fact that it is parents who shape our earliest attitudes and values. They can also influence, to

some extent, what sort of people we socialize with as children and young adults which, in consequence, has an impact on who we are friends with in the future. The relation between these two determinants will be taken into account in further parts of this paper.

Table 2

**Logistic Regression of Being an Entrepreneur in 1998–2013 on Having Entrepreneurial Friends, Controlling for Gender, Education, and Age**

Independent Variables	Coefficients	Robust S.E.	Odds Ratio
Model I: Without controlling for having entrepreneurial father			
Having Entrepreneurial Friends in 1993	0.803***	0.245	2.231***
Gender (1 = Male)	0.225	0.221	1.252
Education in 1993 (in years)	0.093**	0.036	1.098**
Age centered	0.135	0.116	1.144
Age squared	-0.002	0.001	0.998
Constant	1.540	3.152	4.664
Fit Statistics: Wald $\chi^2(5) = 53.14$ ; Prob > $\chi^2 = 0.000$ ; Pseudo $R^2 = 0.101$			
Model II: With controlling for having entrepreneurial father			
Having Entrepreneurial Friends in 1993	0.766**	0.246	2.150**
Having Entrepreneurial Father	1.028**	0.405	2.794**
Gender (1 = Male)	0.232	0.224	1.262
Education in 1993 (in years)	0.094**	0.037	1.098**
Age centered	0.154	0.119	1.167
Age squared	-0.003	0.001	0.997
Constant	2.079	3.219	7.994
Fit Statistics: Wald $\chi^2(6) = 57.72$ ; Prob > $\chi^2 = 0.000$ ; Pseudo $R^2 = 0.110$			

\*\*\*p &lt; 0.001;

\*\*p &lt; 0.01;

\*p &lt; 0.05;

N = 706

**Money: Potential Financial Resources**

In order to start a private business, some investment capital is usually necessary. Researchers argue that this is an indispensable condition to turn a potential entrepreneur, representing “entrepreneurial spirit” (indicated by positive attitudes towards risk, self-reliance, propensity to invest in a new firm), into an actual business owner (e.g. Krueger and Breazeal 1994; Wesołowski 1996; Blanchflower and Oswald 1998).

POLPAN Panel study offers information not only on respondents’ incomes, but also on their potential financial resources—money they would be able to easily obtain within a week. The 1993 POLPAN questionnaire includes the following item: *Imagine that you are asked to pay two million zlotys for something that you want to have very much. Would you be able to pay this amount in a week?* What was the worth of two million zlotys (PLN)? In 1993 monthly minimum salary oscillated between 1.5 and 1.75 million PLN.<sup>5</sup> In this context, the amount of 2 million zlotys may be considered as relatively low, but it would be enough to cover the administrative costs of opening a small business, or to secure a bank loan.

Even the possibility of obtaining such a modest in sum of money had a significant impact on the chances of becoming an entrepreneur in freshly introduced market

<sup>5</sup> Archive of minimal wages available at the Polish Social Insurance Institution website: [www.zus.pl](http://www.zus.pl).

economy. The correlation of having potential financial resources in 1993 with becoming an entrepreneur is stronger than the one between having entrepreneurial parents or entrepreneurial friends ( $r = 0.201$ ,  $p = 0.000$ ,  $N = 737$ ), compared to 0.104 (fathers) and 0.188 (friends). A logistic regression model with potential financial resources as the main explaining variable also indicates its importance (Table 3). Being able to obtain 2 million PLN in 1993 increased the odds of becoming an entrepreneur by almost 2.3 times ( $p < 0.001$ ).

Table 3

**Logistic Regression of Being an Entrepreneur in 1998–2013 on Having Potential Financial Resources in 1993, Controlling for Gender, Age and Education**

Independent Variables	Coefficients	Robust S.E.	Odds Ratio
Was able to obtain 2 million PLN in 1993	0.828***	0.230	2.289***
Gender (1 = Male)	0.329	0.217	1.390
Education in 1993 (in years)	0.109**	0.035	1.115**
Age centered	0.152	0.113	1.164
Age squared	-0.002	0.001	0.997
Constant	1.747	3.077	5.737
Fit statistics: Wald $\chi^2(5) = 59.21$ ; Prob > $\chi^2 = 0.000$ ; Pseudo $R^2 = 0.109$			

\*\*\*  $p < 0.001$ ;\*\*  $p < 0.01$ ;\*  $p < 0.05$ ;

N = 737

**General Model: Family, Friends, and Money**

In order to examine the influence of both social and economic determinants on the chances of becoming an entrepreneur, I ran a logistic regression model with three main independent variables: money (whether respondent was able to obtain two million PLN in 1993), father (whether respondent's father ran a company when respondent was 14 years old) and friends (whether respondent had friends running companies in 1993) (Table 4). The whole model explains more variation in dependent variable than the ones including only family background (Pseudo  $R^2 = 0.124$ ). The significance of all those three determinants is confirmed. In this model having a father owning a business increases the odds of becoming an entrepreneur in the future by almost 3 times (Odds Ratio = 2.856). The effect of having an entrepreneurial father indicates that parent's profession has a much stronger effect than both friends and the possibility of obtaining money (Odds Ratio for both at similar levels of 1.912 and 1.967).

These results indicate the *primary importance of parents in shaping future careers*. This can be due to genetics, socialization processes and possible transfer of accumulated capital (e.g. Shane, Nicolaou, Cherkas, Hunkin, and Spector 2008; White, Thornhill, and Hampson 2007; Lindquist, Sol, and Van Praag 2015). The data at hand do not contain necessary information to distinguish the effects of these factors. However, some findings seem interesting with respect to possible transfer of accumulated capital. It occurs that having a father running a company is not significantly correlated with respondent's ability of obtaining two million PLN within a short period of time. However, parents running their own companies might want their children to develop important entrepreneurial attitudes: self-reliance and independence. In such a case, they would refrain from supporting offspring financially.

Being able to obtain two million PLN is moderately correlated with having entrepreneurial friends ( $r=0.245$ ,  $p=0.000$ ), which is not unexpected as generally relatively wealthy or successful people are attracted to each other. Having entrepreneurial fathers is weakly but statistically significantly correlated with having such friends ( $p=0.068$ ,  $p<0.005$ ). The relationships between these variables show that it could be valuable to introduce interaction terms into the general model. The analyses included all interaction terms for potential of obtaining financial resources, the fact of having a father running own company, and entrepreneurial friends.

Although the interaction terms are statistically insignificant, the pattern is clear: besides the effects of money, entrepreneurial parent and friends, having all these three resources increases the chances of becoming an entrepreneur further by almost 1.5 time. That means people who had the possibility to obtain investment capital in 1993, who originated from entrepreneurial families and were surrounded by entrepreneurial friends were very strongly determined to become entrepreneurs themselves.<sup>6</sup>

Table 4

**Logistic Regression of Being an Entrepreneur in 1998–2013 on Having Potential Financial Resources, Entrepreneurial Father and Friends (Controlling for Gender, Age and Education)**

Independent Variables	Coefficients	Robust S.E.	Odds Ratio
Was able to obtain 2 million PLN in 1993	0.648**	0.237	1.912**
Having Entrepreneurial Friends in 1993	0.676**	0.246	1.967**
Having Entrepreneurial Father	1.049*	0.412	2.856*
Gender (1 = Male)	0.148	0.228	1.160
Education in 1993 (in years)	0.079*	0.039	1.082*
Age centered	0.169	0.121	1.183
Age squared	-0.003	0.001	0.972
Constant	2.383	3.295	10.833
Fit Statistics Wald chi2(7) = 64.36 Prob > chi2 = 0.000 Pseudo R <sup>2</sup> = 0.124			

\*\*\*  $p < 0.001$ ;\*\*  $p < 0.01$ ;\*  $p < 0.05$ ;

N = 702

### Limitations

The main limitation of the study is connected with the structure of the panel POLPAN sample. On the one hand, the size of the study, its representativeness and its panel character make it a good source of information about Polish society. On the other hand, however the fact that not all respondents were revisited in every wave, causing variations in the sample size and structure, which renders the analyses more difficult. Due to the focus on longitudinal effects, the subsample does not include the youngest participants of POLPAN study, which also influences the age spectrum of the respondents included in analyses. In the POLPAN sample there is a strong representation of small and medium-sized firm owners, but the largest scale entrepreneurs could not be captured in this study.

<sup>6</sup> Computer outputs available upon request from the Author.

In the analytical sense it is important to consider the impact of variables omitted from the statistical models presented in this paper. Coefficients of these models can be biased if interactions with the omitted variables are significant. Further analyses should take into account a number of variables, which can potentially influence the outcome of becoming an entrepreneur, such as previous occupation of respondents (Rona-Tas 1994), and their political or psychological attitudes: supporting economic privatisation, self-efficacy, self-reliance, and risk attitudes (Boyd and Vozikis 1994; Osborn and Słomczyński 2005; Vereshchagina and Hopenhayn 2009).

### Conclusion

My analyses confirm the significance of both social capital and potential financial resources on the chances of becoming an entrepreneur in Poland in 1998–2013. The effect of having entrepreneurial friends in 1993 on running a private business in the future indicates the importance of informal networks in building businesses during economic transformation.. Having a father running a business was the strongest determinant of following the same profession. The persistent significance of entrepreneurial-family origin points to an inter-generational continuity of social class of business owners in Poland throughout political and economic changes.

The results concerning the influence of being able to obtain even relatively modest financial resources in early 1990s on the chances of becoming an entrepreneur 5, 10, 15 or even 20 years later prove how important it was to be able to invest at a right time in order to seize an opportunity. Not being able to collect an equivalent of minimum monthly salary in 1993 might still be of consequences in forming social inequalities.

Models with interaction terms show relative importance of combinations of different determinants. The combined effects of being raised in an entrepreneurial family and surrounded by entrepreneurial friends increases the chances of running a company significantly stronger than having only one of these characteristics. The results suggest that social capital plays a more important role in facilitating of opening a business than potential financial resources. However, the mechanism through which social capital influences of becoming entrepreneur require further study.

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