

## ANALYZING THE INFLUENCING FACTORS FOR ENTREPRENEURSHIP IN RURAL AREAS

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### Abstract

This paper focuses on the understanding of entrepreneurship in rural areas. We investigate whether entrepreneurship in rural areas is substantially different from entrepreneurship in cities. It analyses the antecedents and influencing factors for entrepreneurship in rural areas compared to urban areas. In addition, the characteristics of new businesses in rural areas discuss their possible impact on regional development.

**Keywords:** rural entrepreneurship, factor analysis, new business

### 1. Introduction

Entrepreneurship research deals with entrepreneurship in agglomerations or urban areas. There are a number of reasons why cities may be particularly conducive to entrepreneurship (Bosma et al. 2008): Cultural and economic diversity is higher (Florida 2002).

The term “rural entrepreneurship” implies that entrepreneurship in rural areas is different from entrepreneurship in cities and agglomerations. However, there are only few studies that investigate characteristics and influencing factors of start-ups in rural areas beside the agricultural sector (McElwee et al. 2005). Thus, Kalantaridis (2004) finds that entrepreneurial activities in selected European areas is clustered in different behaviour patterns strongly depending from the availability of economic agents and a supportive local context within the region. Special attention has been given to immigrant entrepreneurs in rural areas (Guelsuemser et al. 2008; Kalantaridis and Bika 2006) while Dinis (2006: 14) at least identifies “*rural resources [as] highly valuable for a growing part of the society [...] that can constitute a good business opportunity*” for entrepreneurs to create new ventures in rural areas. However, Meccheri and Pelloni (2006: 371) certainly not wrongly summarize research about entrepreneurship in rural areas as follows: “*Despite the recognition of entrepreneurship as one of the main determinants of rural economic development, empirical research in this field is relatively sparse. Thus there is little evidence on the role and function of rural entrepreneurs, the driving force behind the birth, survival and growth of rural enterprises.*”

### 2. Literature review

Start-ups in rural areas are different from start-ups in urban areas: In rural areas independence is an important motivation for starting a business (Westhead/Wright 1999). It can be assumed that these businesses are less growth oriented than purely opportunity driven ventures, which are more prevalent in metropolitan areas (Bosma et al. 2008). There are sectoral differences between urban and rural areas, too: While agriculture-related businesses are more prevalent in rural settings high-technology start-ups are only rare in general (North and Smallbone 2000). Furthermore, entrepreneurs in rural areas may face difficulties surrounding the availability and cost of finance, which limits their growth potential (Keeble 1993).

### **2.1 Regional entrepreneurial activities**

Most investigations of regional entrepreneurial activities find a positive relationship between population density and entrepreneurial activity: Agglomerations usually have higher levels of entrepreneurial activity than rural areas (see Brixy and Grotz, 2002; Fritsch and Falck, 2002; Reynolds et al., 1994). However, the distinction between urban and rural areas in multivariate analyses, which are prevailing today, is somewhat unsatisfactory: If taken into account, the urban/rural difference is only treated as one variable. Papers on regional entrepreneurship differences usually investigate urban and rural areas in the same model while only taking account of population density or a dummy variable for agglomerations in contrast to rural areas (Naudé et al. 2008; Bergmann/Sternberg 2007). Such an approach assumes that the basic processes and influencing factors are the same in both types of regions. However, there is some evidence that entrepreneurship in rural areas is in two ways different from entrepreneurship in urban areas: In rural areas people with different characteristics and backgrounds start new businesses (Vaillant/Lafuente 2007).

### **2.2 Education and entrepreneurial relations**

The relationship between the level of education and entrepreneurial propensity demonstrates contrasting tendencies. On the one hand, people with a high level of education tend to have better prospects on the labour market and higher earnings potential than less highly qualified people. According to this logic, entrepreneurial propensity should decline as the level of education rises. On the other hand, there are many self-employed activities which require a high level of knowledge and skills. Empirical investigations show that the second relationship predominates and that a positive correlation between the level of education and entrepreneurial propensity can therefore be assumed (Bruederl, Preisendoerfer and Ziegler 1996, Davidsson and Honig 2003, Robinson and Sexton 1994).

Former entrepreneurs or people in self-employment can be expected to have the knowledge and the capability to launch another start-up and it can therefore be assumed that they have a higher entrepreneurial propensity than people without such experience. Empirical studies support this conjecture (Davidsson and Honig 2003, Wagner 2003).

Similar to the level of education, there are different tendencies in relation to age and entrepreneurial propensity. On the one hand, expertise, professional experience, self-confidence and the amount of capital available usually increase with age, which makes entrepreneurial activity more probable (Bates 1995). On the other hand, the level of professional and family embeddedness increases with age. Accordingly, the planning horizon for the remainder of the working life decreases, which would tend to weigh against entrepreneurial activity. The impact of these two influences on the decision to launch a start-up can be analysed using life cycle models (Schulz 1995: 114ff). Overall, the two contrasting influences demonstrate a reversed, U-shaped relationship between age and entrepreneurial propensity, which is also confirmed by most empirical studies. Initially, entrepreneurial propensity increases with age, reaches its peak between the ages of 35 and 40 approximately and then drops off towards the end of the working life (Bates 1995, Welter and Rosenblatt, 1998).

### 3. Methodology

We focused our study to sectoral differences between start-ups in rural and urban areas. In order to address this twofold research question, our analysis is based on the data sources: Global Entrepreneurship Monitor (GEM).

The factors influencing entrepreneurship are mainly investigated on the basis of the GEM dataset. The individual data from the telephone survey is combined with regional data from official statistics

### 4. Research results

Table 1 summarizes the results for two regression models separately calculated in urban and rural areas to isolate influencing factors for entrepreneurship (defining TEA as dependent variable). Independent variables were selected on the base of previous research. In line with these research findings, model 1 (influencing factors on entrepreneurship in urban areas) returns all factors as significant, i.e. they positively influence entrepreneurial activities. Model 2 (rural areas) in contrast shows that some variables such as former business ownership or the self-employment rate in the region show no significant positive influence on the TEA in rural areas.

**Table 1: Determinants of influencing factors for entrepreneurship**

	Model 1 Urban Area			Model 2 Rural Area		
	Coef. B	Wald stat.	Sign.	Coef. B	Wald stat.	Sign.
<b>Person-related variables</b>						
gender (1=male)	0.2954	5.36	**	0.6078	5.44	**
age (in years)	0.1775	24.10	***	0.2113	10.04	***
age squared	-0.0023	26.57	***	-0.0027	10.94	***
combined signific. of two age variables <sup>a</sup>			***			***
vocational training (1= yes)	0.8978	8.67	***	0.5826	1.54	
grammar school (1= yes)	0.9839	7.89	***	1.6122	9.28	***
tertiary education (1=yes)	1.2715	17.41	***	0.9923	4.25	**
unemployed (1=yes)	0.4962	5.81	**	0.9867	5.51	**
homemaker (1=yes)	-0.3682	5.33	**	0.2154	0.55	
former business owner (1=yes)	1.3358	27.88	***	0.6160	1.14	
business angel (1=yes)	0.6720	12.28	***	0.3569	2.16	
<b>Regional variables</b>						
self-employment rate 2000 (in %)	0.2044	7.71	***	-0.0414	0.14	
purchasing Power 2005 (in 1000 CHF)	0.0306	4.31	**	0.0269	0.46	
year 2017 (1=yes)	0.0968	0.52		-0.1191	0.23	
Constant	-10.5616	50.38	***	-8.4623	9.74	***
N		5338			2216	
Nagelkerke R-Square		0.076			0.063	

\*\*\*: significant on 99%-level

\*\* : significant on 95%-level

\* : significant on 90%-level

<sup>a</sup>The variable age was introduced into the models in single form and as age-squared in order to control for non-linear relationships. In all the described models the age variable has a positive impact on the probability of starting a new business whereas the age-squared variable has a negative influence. Therefore the combined influence of age on self-employment takes an inverse u-shaped form. The combined significance of the two age variables is tested by using an adjusted Wald-test.

### **5. Implications**

The results for influencing factors are as follows: For the most part, the results for urban areas are in line with the theoretical predictions and with the results of other studies on regional entrepreneurship differences. The factors influencing start-ups in rural areas, on the other hand, are far more difficult to determine. These start-ups are predominantly launched independently of the entrepreneurs' age, gender, level of education and regional influences. This result corresponds to findings from other countries. While we seem to understand urban entrepreneurship quite well, entrepreneurship in rural areas is far more difficult to predict.

Concerning the characteristics of start-ups based on the GEM-data, we find some differences between rural and urban areas. However, differences are smaller than expected and we therefore discuss whether it is justifiable to speak of rural entrepreneurship as being distinct from entrepreneurship in agglomerations for the case of a highly developed small country.

### **6. Conclusions**

In summary, we found the significant differences between urban and rural start-ups. These differences concern firstly the start-up rates in urban and rural areas. Urban areas show a significantly higher start-up rate than rural areas. These findings are in line with previous studies and draw the picture of entrepreneurship as a mainly large-city phenomenon. Secondly, we found that as well new technology applying firms as well as export-oriented firms have been significantly more often founded in urban than in rural areas.

As these results are preliminary and the research framework uses an explorative approach, these findings have to be discussed in further research. The presented differences in the findings by the analysis of the GEM-dataset the opportunity to both further work on spatial variations in start-up rates and characteristics in the development of means to use both datasets to cross-validate findings on the methodological level.

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