



The geography of the continuum of entrepreneurship activities—a first glance based on German data

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Abstract

The characterization of how entrepreneurial a region or country is, has generally been shaped by a narrow view of what actually constitutes entrepreneurship. In the case of Germany, this has led to a characterization of Germany as not being particularly entrepreneurial. Such a view is at odds with the remarkable, high-performing family business, widely held to be the backbone of the economy. The purpose of this paper is to suggest that the interpretation prevalent in entrepreneurship literature is problematic due to a too narrow operationalization of the entrepreneurship concept. As Zahra (2007; 2014) emphasized, context matters for entrepreneurship, especially on a local or spatial level. One particular organizational manifestation of entrepreneurship, family business, may be congruent in specific spatial and institutional contexts but not in others. Other geographic and institutional contexts may be congruent with the contrasting startups. Thus, an important and novel contribution of this paper is to analyze the geography of family business as distinct from startups: two ends of the entrepreneurship continuum, embedded in different kinds of entrepreneurial ecosystems. We generate innovative maps working with official data, showing the distinct distribution of both kinds of entrepreneurship in different ecosystems. These findings are connected with spatial effects, living conditions and lead to recommendations for policy measures. The paper focuses on Germany, because startups as well as family business are prevalent and can be found in all regions.

Keywords Family Business · Startups · Context · Regions · Sustainability · Policy · Ecosystem

JEL L26 · R11 · M14 · D21 · E1 · R12

1 Introduction

At a first glance, Germany seems not particularly entrepreneurial – either due the kind of definition, what entrepreneurship might be (Audretsch, 2021) or i.e. depending on cultural practices or characteristics (Aly and Galan-Edeen, 2021) or other reasons, like ecosystems,

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political support, or networks, etc. (Grimm, 2020; Casson, 2020; Fritsch 2020). For example, the 2019, 2020 and 2021 Global Entrepreneurship Index ranks Germany as the fifteenth most entrepreneurial country in the world, behind France, Hong Kong, Israel, slightly ahead of Austria and Belgium (Acs et al., 2019; <https://thegeedi.org>). In terms of entrepreneurial intention, the Global Entrepreneurship Monitor ranks Germany only 34th out of 43, or only 41st out of 43 for early phase startups (Bosma et al., 2021). Then there is the dismal observation by Joschka Fischer, who served as Foreign Minister, “If Bill Gates were German, there would be no Microsoft.” (Economist, 1995: 77–78).

On the other hand, Germany is world renowned for its remarkable and high performing family business, being innovative, of high quality and internationally connected. Not only are family businesses “the backbone of the German economy” (Bird et al., 2002; Deutsche Welle, 2012) but it remains the “envy of the world” often being resilient as well as highly innovative (Schaer, 2018). The purpose of this paper is to suggest that the interpretation prevalent in the entrepreneurship literature is based on a too narrow operationalization of the concept of entrepreneurship. As Zahra et al. (2014), and Zahra (2007) emphasized, context matters. One particular organizational manifestation of entrepreneurship, family business, may be congruent with some specific spatial and institutional contexts but not in others. Similarly, other geographic and institutional contexts may be congruent with a very different organizational manifestation of entrepreneurship, such as new-firm startups. As Welter (2011) points out, the different kinds of organizational manifestation of entrepreneurship will tend to be congruent with or map on to the particular context (see as well i.e. Goel & Grimpe 2012). Thus, an important and novel contribution of this paper is to provide a considerably more nuanced and context sensitive view of entrepreneurship, following other research dealing with different kinds of entrepreneurship (i.e. Goel & Saunoris 2017). We do this by analyzing the geography of family business as distinct from new-firm startups as two independent ends of a continuum of entrepreneurial activity, delivering not only sharp definitions but also showing strong varying spatial variation as well as different effects of the two kinds of entrepreneurship, which are important for society and public policy. Family business might be gatekeepers to jobs, technology transfer and innovation in rural areas, startups in agglomerations. Using this conceptual framework to analyze the geographic distribution and manifestation of different kinds of entrepreneurship – startups and family business – we embed our results in the discussion that different kinds of entrepreneurship are to be found in different spaces and places (Minniti, 2005), potentially due to different values of individuals (Laspita et al., 2012) or social network groups and the embeddedness of firms and individuals in these systems (Fritsch et al., 2019). That place matters holds not just for entrepreneurship but equally important for the type or manifestation of the particular nature of that entrepreneurial activity.

The second section of this paper explains how and why the particular manifestation or kind of entrepreneurship might be expected to vary across geographic space. This section introduces the data base and measurement issues enabling us to analyze the geography of the two specific ends of the entrepreneurship continuum, new-firm startups and family business. While a plethora of studies have examined the geography and conducive ecosystems of startups, virtually no research exists analyzing the geography and spatial distribution of a different and more prevalent organizational manifestation of entrepreneurship – family business. The contribution of this work here is, to show, that (a) both academic research as well as policy needs to deal with a continuum of entrepreneurial activities, ranging from

startups to family business as the two end- points of the spectrum, and (b) that those heterogeneous entrepreneurial activities vary across geographic space. Finally, with this study we show (c) that the two categories of organizational manifestations of entrepreneurship do map differently on space and place, as well as the specific regions where they are located. The paper concludes that no one particular type of manifestation of entrepreneurship is superior to others. While entrepreneurship matters for nations in general, the particular type of entrepreneurship that matters apparently differs across regions, even holding the national context constant. Finally, in the last section a summary and conclusions are provided. In particular, this paper finds that the spatial distribution of family business is not evenly spread over Germany, but rather concentrated in certain regions and less dense in others. While the same holds for the geographic distribution of new-firm startups – or what is to be observed is even more condensed on specific spaces, those regions conducive to family business tend to be strikingly different than those for new-firm startups. While new-firm startups tend to be congruent in dense urban areas, by contrast, family business is more congruent in less densely populated and more rural regions. An important insight for policy is that different manifestations of entrepreneurship, such as new-firm startup and family business, may map on two different types of geographic locations, depending upon place specific characteristics and both kinds of entrepreneurship deliver different effects for those regions.

2 The geography of entrepreneurship

To examine the continuum of entrepreneurship, we contrast the geography of new firm startups with the geography of family business. As Stam & Welter (2021) or Herrmann (2019) emphasize, the narrow conceptualization of a singular manifestation of entrepreneurship ignores a rich literature identifying other and more heterogeneous kinds of entrepreneurship (e.g. Galambos 2020). We follow this broader idea of entrepreneurship, analyzing, discovering and establishing the acceptance of different forms of entrepreneurship due to different environments (e.g. Baker & Welter 2020; Wadhvani et al., 2020). We especially follow the entrepreneurial ecosystem approach (Feldman et al., 2019), because this considers entrepreneurial activity as a “social geographic phenomenon” (Sternberg, 2021, p. 8). Instead of focusing on a singular view of entrepreneurship, we will instead discuss diverse manifestations of entrepreneurship by analyzing different kinds of entrepreneurial activity – new firm startups and family business. The paper focuses on geographic context reflecting disparate kinds of ecosystems and heterogeneous effects for society, places and space. This is still rare in regards of different spatial areas or forms of entrepreneurship (i.e. Goel & Saunoris 2018).

In particular, we consider the spatial variation of two different organizational manifestations of entrepreneurship. We follow here the assumptions of Audretsch & Fritsch (2002) as well as Sternberg (2021), that focusing on regions and local entities like the NUTS III areas is appropriate because most companies, either startups or family business, remain in their home regions, and thus, spatial spaces can be seen the same as geographical spaces.

The first organizational manifestation of entrepreneurship is startups or newly founded companies. The second is family business (Rovelli et al., 2021), which plays an important role in Germany, as well as in other countries. We will show – by differentiating between those categories of entrepreneurship, that they are heterogeneous not only in terms of defini-

tion but also by location, and through their different impacts on the regions and communities where they are located. This differentiated point of view and in-depth analysis of the heterogeneity and continuum of entrepreneurship shows the importance of both types of entrepreneurial activity. While agglomeration externalities and specific entrepreneurial ecosystems play an important role in certain geographic contexts, such as in denser urban areas, in other spatial contexts, such as rural and less densely populated regions, they may be of less importance. As Sorenson (2018) points out, in such regions entrepreneurship policy should go way beyond the attempt to build clusters or support only innovative startups. And as Kuratko & Hodgetts (1998, p. 6) emphasize, the concept of entrepreneurship is more than the creation of a new business. Although that is certainly an important facet of entrepreneurship, it is not the complete picture: “The characteristics of seeking opportunities, taking risk beyond security, and having the tenacity to push an idea through to reality combine into a special perspective that permeates entrepreneurs”. This is reflected in the academic literature (Gans et al., 2019; Low, 2001; Low & MacMillan, 1988). Thus, as a first step, we disentangle entrepreneurship into distinct categories and analyze the spatial variation for each of the two kinds of entrepreneurship activity. The paper focuses on Germany, because startups as well as family business are prevalent and can be found in all regions (Bosma et al., 2021; Mandl, 2008). Moreover, Germany is comparable to Switzerland and Austria regarding the family business as well as entrepreneurial development. As Basco & Ricotta (2020) showed on a national level (NUTS I regions in Italy), the location of family business in rural areas can be found elsewhere, too – but measured in this case on a very aggregated level (Bjuggren et al., 2011), as well as the agglomeration of startups in cities and dense regions. Before starting the discussion of the two entrepreneurial activities, we first explain why we relate our research to the entrepreneurial ecosystem concept and second, our dataset and method, which enable us to generate new insights into the geography of entrepreneurship.

2.1 Disparate manifestations of Entrepreneurship Across Geographic Space

Just as the British poet John Donne observed that “No man is an island,” the burgeoning literature on entrepreneurial ecosystems posits that no entrepreneur is isolated. Rather, a key insight garnered from analyzing entrepreneurial ecosystems is that entrepreneurship is shaped by the regional spatial context (Acs et al., 2017; Stam & van de Ven, 2021; Van De Ven, 1993; Woolley, 2017). To link entrepreneurship to the spatial context requires measurement of both the two different manifestations of entrepreneurship, new firm startups and family business across geographic space. The sources of data and method used to measure family business along with the spatial context are explained in Appendix A.

The collected data will be analyzed descriptively and visualized on the NUTS III level to make regional differences visible and to show implications of this distribution of family businesses and startups on the specific region, places and spaces.

2.2 The standard view of entrepreneurship – new-firm startups

Before the field of entrepreneurship research took off, Schumpeter was widely ignored, and thought leaders in business, policy or leading researchers paid scant attention to the role of new firms or entrepreneurship in general, in economy and society (Audretsch & Moog, 2020), because this period was dominated by size, scale, and scope (Chandler, 1977;

Chandler & Hikino, 1990). However, when Birch (1981) identified small and new firms as the driving force behind the creation of new jobs and innovation (Acs & Audretsch, 1988, 1990), the general idea of entrepreneurship was (re-)born and subsequently emerged as a long-hit wonder. From this same moment on, entrepreneurship scholars stuck with a rather narrow and one-dimensional conceptualization of what constitutes the phenomenon of entrepreneurship – which is characterized as the Silicon Valley Model (Audretsch, 2021; Herrmann, 2019; OECD, 2011; Shane & Venkataraman, 2000). This includes the business model, financing, performance, labor market, network activities, knowledge, etc.- with a particular focus on innovative, high-risk startups, typically in a strong human capital ecosystem (universities, clusters, etc.) (Eisenhardt & Schoonhoven, 1990; Lécuyer, 2007; Saxenian, 1994), resulting in high rates of startup (Audretsch, 2021), failure and turbulence – delivering benefits but also potential societal problems and challenges for the home region (Kim & Kim, 2021). Thus, as recent discussion shows, the attention is raising, if entrepreneurship in this common view fosters local development on an economic but as well social level in a sustainable long-term way (Pike et al., 2007, 2017; Sutter et al., 2019). And as first results show, there are scaling-up ventures often moving away from where they started on to scaling-deep ventures, delivering different outcomes for society and local entities as cities or villages (Kim & Kim, 2021).

The drivers of entrepreneurship in this traditional meaning, or important context factors, are explored in ecosystems positively pushing these entrepreneurial activities, due to knowledge spill-over, financing, human and social capital, infrastructure, etc. (Audretsch & Feldman, 1996; Audretsch & Link, 2012; Autio et al., 2014; Lehmann et al., 2019; Stam & van de Ven, 2021; Tsvetkova, 2015). This leads to an analysis of the geography of startups, which characterizes the spatial location and variation conducive to this activity. Thus, in papers and studies, we see clusters of startup activities, in so called star regions (Bosma et al., 2021), mostly located in large cities.

Figure 1; Table 1 confirm those findings by e.g. Bosma et al. (2021), or Stam & van de Ven (2021), that there is a high variance in startup activity across geographic space. As previous studies have found, the highest startup rates occur in densely populated urban areas, such as Munich, Berlin, Frankfurt am Main, Cologne, Mannheim and Duesseldorf. Also, in GEM or other studies these cities are being classified as the most entrepreneurial locations in Germany.

By contrast, those regions with the lowest prevalence of new-firm startups tend to be rural with a low population density. Table 1 demonstrates this very clearly. As our findings show, we see a very strong spatial concentration of startup activity in big cities and agglomerations, but almost no startups in rural areas or small cities. As Kim & Kim (2021) discuss, this characterization of entrepreneurship as high-growth firms, should enhance local development and improve places. But if this really happens, it is regionally very limited and does not frequently take place as often or is as effective as expected. Thus, it should be taken into account, that different categories of entrepreneurship or entrepreneurial activity seem to create different effects in the region and local environment they are established (Kim & Kim, 2021; Feldman et al., 2019 show this specially for venture financed startups).

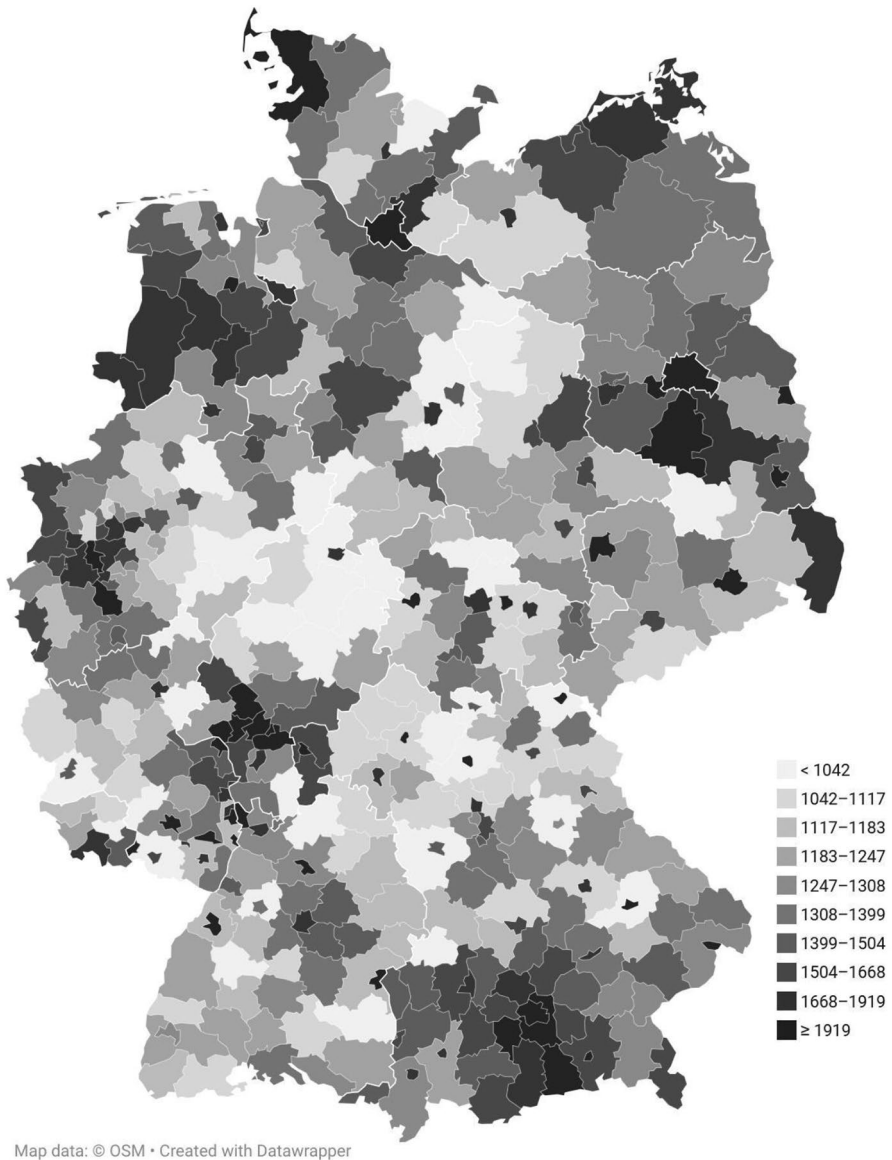


Fig. 1 Number of startups (2011–2020) related to number of inhabitants (startup rate). Source: Own analysis & presentation based on data from (Statistische Ämter des Bundes und der Länder, 2021; Statistisches Bundesamt (Destatis), 2021)

2.3 A broader view of the continuum of entrepreneurship – family business

Figure 1 shows that the spatial distribution of entrepreneurship measured only by startups, is highly skewed. While some large, highly agglomerated regions, such as Berlin, Hamburg, Munich and Cologne exhibit high levels of startup entrepreneurship, many more regions are

Table 1 Top regions - number of startups (2011–2020) and startup rate

Rank	Top 20					Bottom 20				
	Region	Population	Startups (Number 2011–2020)	Startups / Population (in 100,000)	Rank	Region	Population	Startups (Number 2011–2020)	Startups / Population (in 100,000)	
1.	München, Landkreis	350 473	13,899	3965.78	382.	Neckar-Odenwald-Kreis	143 633	1363	948.95	
2.	Frankfurt am Main	763 380	24,114	3158.85	383.	Coburg	86 747	823	948.74	
3.	Passau	52 803	1558	2950.59	384.	Hof	94 801	892	940.92	
4.	Duesseldorf	621 877	18,089	2908.77	385.	Helmstedt	91 297	849	929.93	
5.	Baden-Baden, Stadt	55 185	1548	2805.11	386.	Vogelsbergkreis	105 643	970	918.19	
6.	Kaiserslautern	100 030	2521	2520.24	387.	Wolfenbüttel	119 622	1090	911.20	
7.	Berlin	3 669 491	89,294	2433.42	388.	Altenkirchen (Westerwald)	128 805	1145	888.94	
8.	Main-Taunus	238 558	5751	2410.73	389.	Höxter	140 251	1243	886.27	
9.	Rosenheim	63 551	1509	2374.47	390.	Schwalm-Eder-Kreis	179 673	1588	883.83	
10.	München, Landeshauptstadt	1 484 226	34,824	2346.27	391.	Kusel	70 219	615	875.83	
11.	Potsdam, Stadt	180 334	4231	2346.20	392.	Salzgitter, Stadt	104 291	912	874.48	
12.	Leipzig	593 145	13,848	2334.67	393.	Südwestpfalz	94 831	826	871.02	
13.	Starnberg	136 667	3172	2320.97	394.	Warendorf	277 840	2355	847.61	
14.	Schweinfurt Stadt	53 426	1227	2296.63	395.	Gifhorn	176 523	1491	844.65	
15.	Mannheim	310 658	7003	2254.25	396.	Kassel	236 764	1997	843.46	
16.	Speyer	50 561	1133	2240.86	397.	Lüchow-Dannenberg	48 412	405	836.57	
17.	Miesbach	100 010	2226	2225.78	398.	Werra-Meißner-Kreis	100 629	829	823.82	
18.	Ulm	126 790	2781	2193.39	399.	Ansbach	184 591	1496	810.44	
19.	Zweibruecken	34 193	743	2172.96	400.	Dillingen a.d.Donau	96 562	772	799.49	
20.	Koeln	1 087 863	23,585	2168.01	401.	Trier-Saarburg	149 398	1174	785.82	

Source: Own analysis & presentation based on data from (Statistische Ämter des Bundes und der Länder, 2021; Statistisches Bundesamt (Destatis), 2021)

considerably less entrepreneurial in this traditional view. This leads to the question, how and why can all other regions in Germany still survive and offer work, and avoid becoming a wasteland like Mezzogiorno in Italy or Detroit in the USA (Kim & Kim, 2021)? Here the so-called backbone of many economies and societies comes into play: family business (Bird et al., 2002). Depending on the definition of what constitutes a family business, in capitalistic oriented countries their rate of all enterprises is between a minimum of 60 and a maximum of 95% (Botero et al., 2015; Nordqvist & Melin, 2010; Osunde, 2017) and their worldwide economic impact is substantial (Gottschalk et al., 2019), because family business offer between 50 and 80% of all jobs and the share of national GDPs is about 60 to 90% (Bergfeld & Weber, 2011; European Family Businesses, 2020; IfM Bonn, 2021). To disentangle the needs and effects of startups as original entrepreneurship activities and family business as so-called derivative entrepreneurship (Volkman et al., 2010), it makes sense to look very carefully on the definition of these important entities for economy and society and thus, to broaden the idea of entrepreneurship as organizational manifestations (Mandl, 2008). Moreover, there has been surprisingly little effort to map the geography of family business, or the spatial distribution of family businesses across regions. The paucity of studies identifying the geography of family business is startling, given the large literature identifying their vociferous impact on regions, provinces, states and entire economies (Basco, 2015; Basco et al., 2020; Block & Spiegel, 2013). Based on the data and measurement described in Appendix A, we deliver new insights on the spatial distribution of family business in Fig. 2, and Table 2.

In contrast to startups and their locations, and what no previous study has shown, Fig. 2 as well as Table 2 provide three key insights about the geography of family business. The first is, – based on our narrow definition (see Appendix A), multi-generational family business are much more evenly spread across German regional levels than are startups. We find family business in almost all regions, especially in rural areas. But, even so – there still exists considerable variance in the spatial distribution of family business across geographic space. As Fig. 2 shows, too, the spatial distribution of family business is also somehow uneven and spiky, but not as with startups. Regions in the east of Germany exhibit a lower incidence of family business, which may reflect a history of a socialist regime in the DDR, which prohibited private business ownership and thus family business. So. i.e. regions in states such as Thüringen in east Germany, exhibit only a paucity of family business. In contrast some regions, such as those in the states of Baden- Württemberg and Bavaria, have a remarkably high prevalence of family business.

A less aggregated view of the geography of family business is provided in Table 2. A great disparity in the family business rate is again here evident. For example, some of the regions, such as Memmingen, the region around Munich, Kaufbeuren, Kempten im Allgaeu, and Landshut, all located in the state of Bavaria, and Baden-Baden along with Tuttlingen in Baden- Württemberg, exhibit family business rates in excess of roughly ten times greater than that in Halle and Salzgitter, located in the state of Saxony, Frankfurt an der Oder, located in the state of Brandenburg, and the region (Landkreis) surrounding Augsburg as well as the city of Augsburg itself, both located in the state of Bavaria. Still, we find family business all over Germany. This shows the importance of longer existing, sustainable family business in different regions, to stabilize economic development in different local and spatial areas and to help create parity in long-term living conditions (Bjuggren et al., 2011; Stiftung Familienunternehmen, 2020). Thus, our analyses show that the spatial distribution

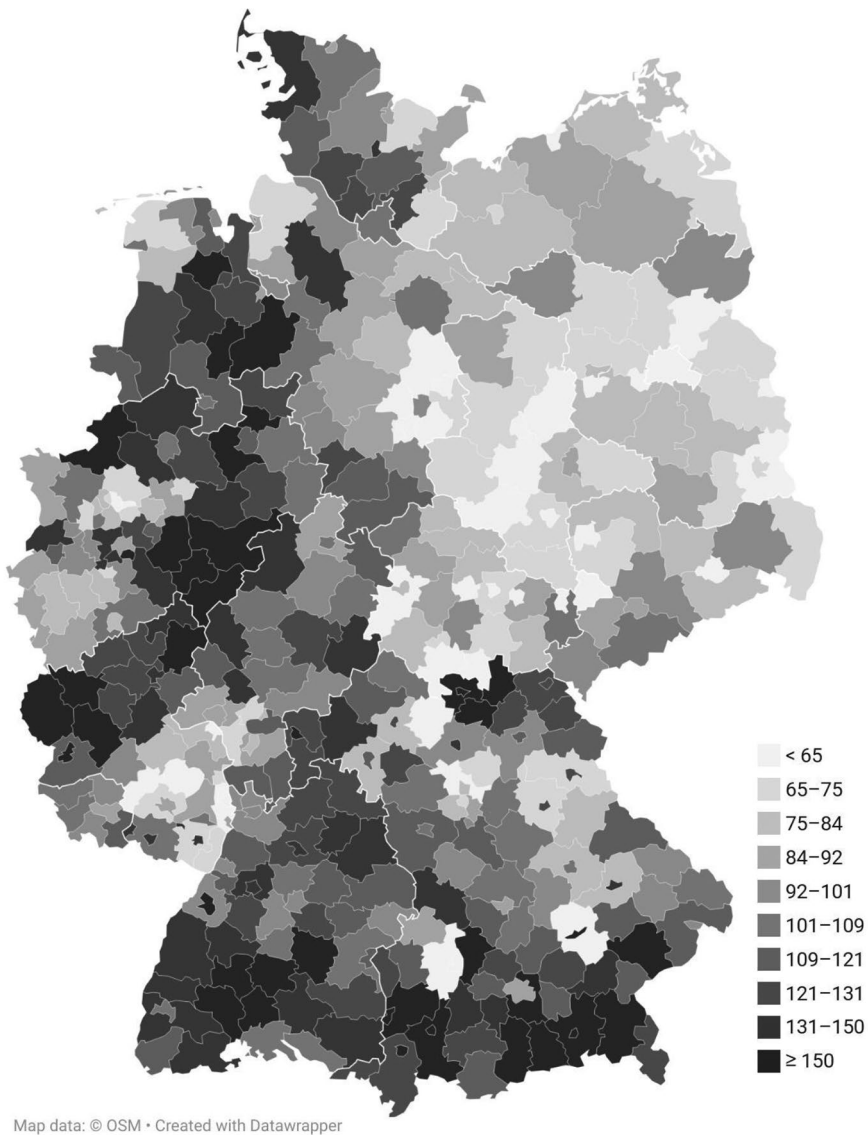


Fig. 2 Number of family businesses related to inhabitants (family business rate). Source: Own analysis & presentation based on data from (Bureau van Dijk, 2021; Statistisches Bundesamt (Destatis), 2021). Population measured in 100,000 & family business when: 50% Ownership & Management participation & existing since 25 Years)

of family business, as depicted in Fig. 2; Table 2, exhibits a strikingly different geography than those of startups.

A second insight is the striking dichotomy in the spatial concentration of family business between the more densely populated urban areas and the less densely populated rural regions. Most of the regions with the highest prevalence of family business in Table 2 are

Table 2 Top and bottom 20 of family businesses related to inhabitants (family business rate)

Top 20							Bottom 20						
Rank	Region	Population	Family businesses	Family-businesses/ Population (in 100,000)	Rank	Region	Population	Family businesses	Family businesses/ Population (in 100,000)				
1.	Memmingen	44 100	189	428.57	382.	Barnim	185 244	103	55.60				
2.	Kaufbeuren	44 398	160	360.38	383.	Potsdam, Stadt	180 334	99	54.90				
3.	Kempten im Allgaeu	69 151	193	279.10	384.	Peine	134 801	74	54.90				
4.	Landshut, Landkreis	73 411	204	277.89	385.	Wolfsburg	124 371	68	54.68				
5.	München Landkreis	350 473	796	227.12	386.	Jena	111 343	60	53.89				
6.	Aichach-Friedberg	134 655	305	226.50	387.	Berlin	3 669 491	1961	53.44				
7.	Vechta	142 814	310	217.07	388.	Herne	156 449	83	53.05				
8.	Unteralldaeu	145 341	311	213.98	389.	Salzlandkreis	189 125	99	52.35				
9.	Tuttlingen	140 766	281	199.62	390.	Grifhorn	176 523	91	51.55				
10.	Borken	371 339	741	199.55	391.	Ludwigshafen am Rhein	172 253	88	51.09				
11.	Hochsauerlandkreis	259 777	504	194.01	392.	Rostock	209 191	106	50.67				
12.	Baden-Baden, Stadt	55 185	104	188.46	393.	Magdeburg	237 565	119	50.09				
13.	Olpe	133 955	252	188.12	394.	Kusel	70 219	33	47.00				
14.	Aschaffenburg	71 002	132	185.91	395.	Leipzig	593 145	266	44.85				
15.	Zollernalbkreis	189 363	342	180.61	396.	Landshut	159 895	71	44.40				
16.	Schwarzwald-Baar	212 506	378	177.88	397.	Halle (Saale)	238 762	105	43.98				
17.	Westerwaldkreis	201 904	355	175.83	398.	Salzgritter	104 291	44	42.19				
18.	Trier	111 528	196	175.74	399.	Frankfurt (Oder)	57 751	24	41.56				
19.	Ostallgaeu	141 182	238	168.58	400.	Augsburg, Landkreis	253 468	93	36.69				
20.	Ammerland	124 859	210	168.19	401.	Augsburg	296 582	51	17.20				

Source: Own analysis & presentation based on data from (Bureau van Dijk, 2021; Statistisches Bundesamt (Destatis), 2021)

rural, or at least not the largest cities. By contrast, the regions with the lowest prevalence of family business tend to be large cities, such as Berlin, Leipzig and Rostock, as even Fig. 2 shows.

A third insight is that certain states contain regions that exhibit the highest prevalence of family business but also regions with the lowest prevalence. For example, the federal state of Bavaria is home to high prevalence family business regions, as Landshut (county) or Memmingen, but also low prevalence family business cities, such as Augsburg and Landshut (city).

Thus, an important insight from comparing the geography of family business with that of new-firm startups is that not only does entrepreneurship vary considerably across geographic space, but equally important, the particular type and manifestation of entrepreneurship also varies considerably across geographic space. Only considering the geography of one specific type or manifestation of entrepreneurship, such as new-firm startups, clearly masks other important entrepreneurship activities, such as family business. The contemporary policy in Germany but as well of other nations, emphasis focusing on one type of entrepreneurship, new-firm startups, at the neglect of other entrepreneurship manifestations (family business), may erroneously mislead regions, particularly the less populated rural one, about the most effective entrepreneurial strategy.

2.4 Startups and family business in relation to all companies per region

When looking at the distribution of startups and family business in relation to inhabitants it emerged that family businesses are more widespread all over Germany than startups, even though they show as well some stronger or less strong accumulation in some areas. To make sure, that this result becomes more robust, the share of startups and family business in relation to all companies in the different regions is analyzed as well. As Figs. 3 and 4 show, this impression holds true as well as rate of family business in relation to all businesses in a region, or looking at the distribution of startups in relation to all businesses as well.

Interpreting the maps of Figs. 3 and 4, again we can observe family business as a nationwide phenomenon, even when their absolute numbers are related to the number of all companies and establishments in the specific NUTS III regions. Thus, this new rate of family business again shows the importance of this widespread. Again, there is evidence, that family businesses are not homogeneously spread all over Germany. When considering the number of all businesses at a place, we observe a stronger appearance in the southern as well as western parts of Germany compared to the northern and eastern regions. Some of those strong regions might have had a competitive advantage offering resources at a specific era of time and thus regions developed historically over time and still remain until today. But here, too, it can be observed that we find family businesses across all regions.

In contrast, startups show again a very strong clustering in specific regions, especially in large cities or agglomerations. The white spots, where the rate is very low can be observed more often in more rural regions compared to the family business map.

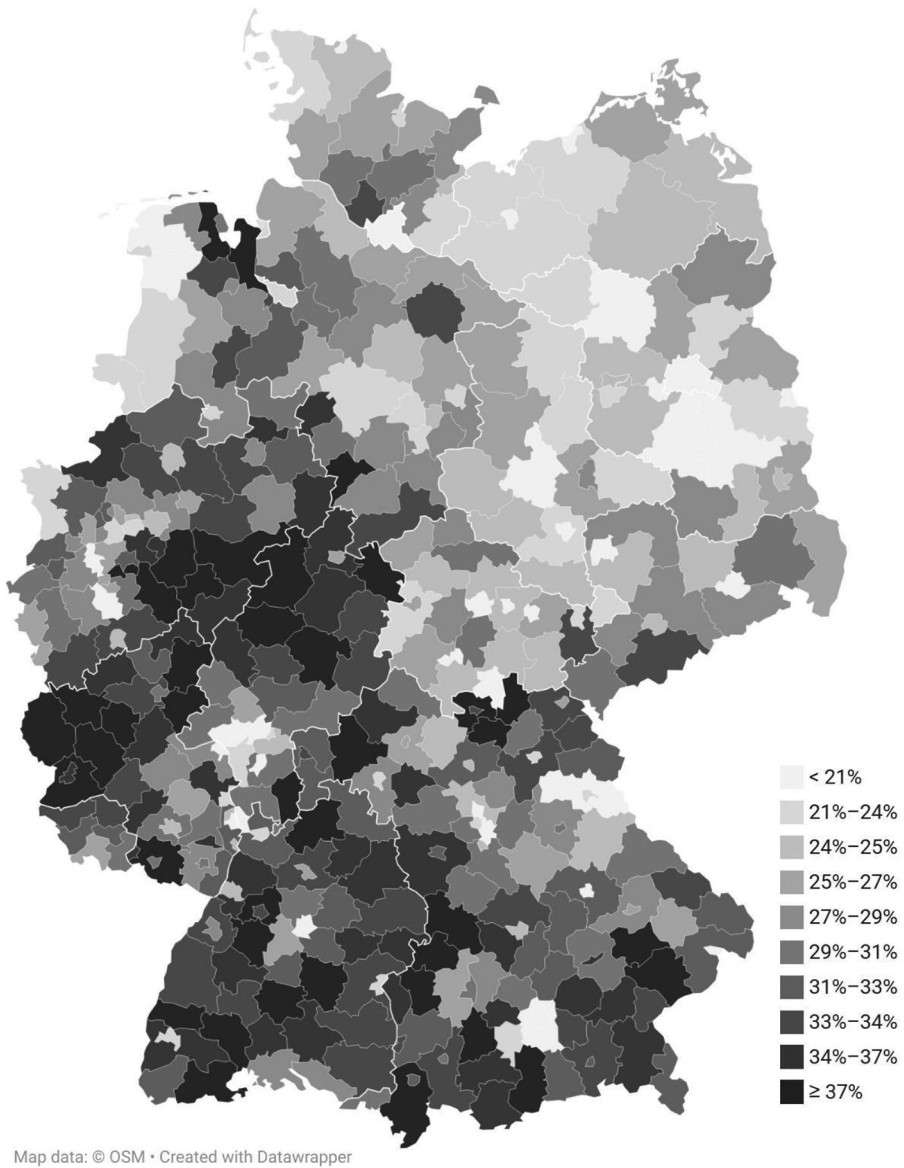
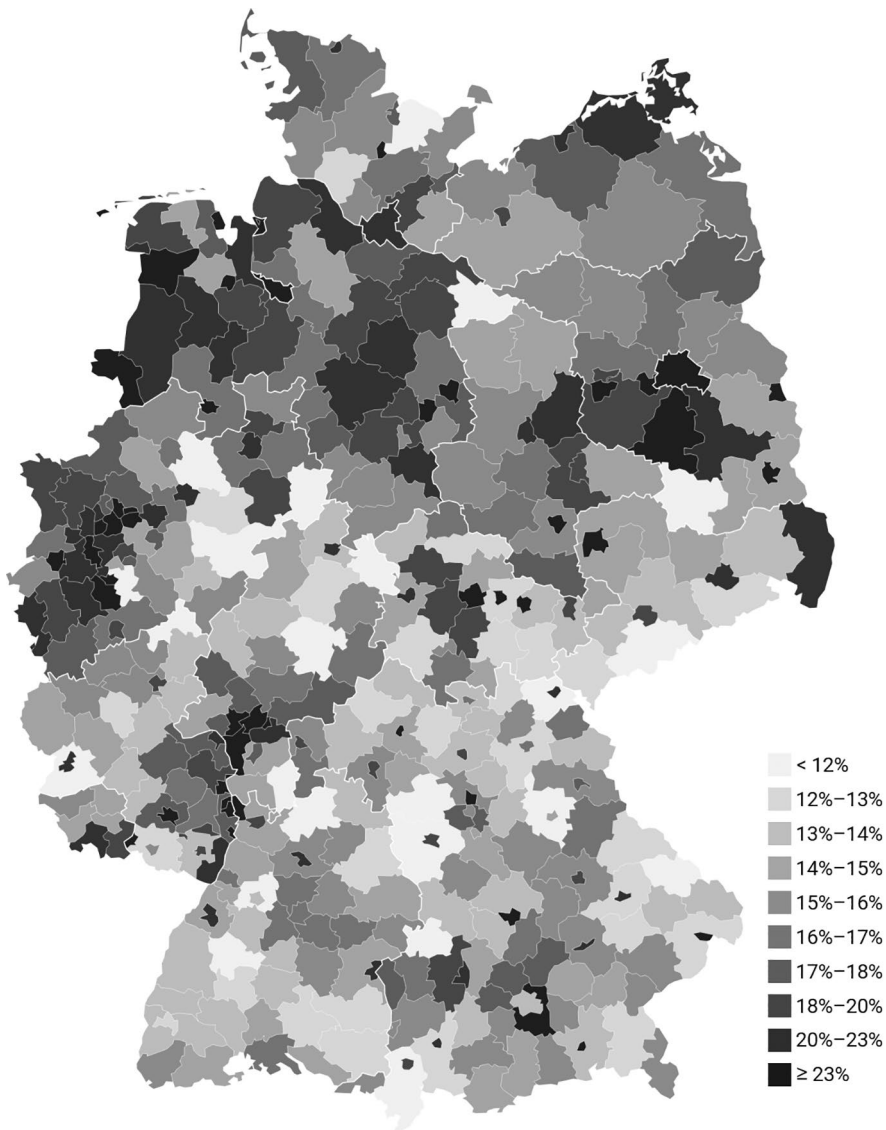


Fig. 3 Family business share among all businesses. Source: Own analysis & presentation based on data from (Bureau van Dijk, 2021; Statistisches Bundesamt (Destatis), 2021)

3 Congruence of entrepreneurship type with spatial context

What does this difference in the spatial distribution and heterogeneity of both kinds of entrepreneurial activity mean for the regions, inhabitants, the economy as well as the society? In particular, the finding that family business is more prevalent in rural regions compared



Map data: © OSM • Created with Datawrapper

Fig. 4 Startup share (2016–2020) among all businesses in Germany (Only establishment of companies with greater economic importance). Source: Own analysis & presentation based on data from (Statistische Ämter des Bundes und der Länder, 2021; Statistisches Bundesamt (Destatis), 2021)

to new-firm startups may suggest that different spatial contexts provide different types of incubation for disparate manifestations of entrepreneurship. Research on family business or in a geographical context has generally refrained from analyzing the specific effects of family business on the local or regional community especially rural or peripheral areas on an economic as well as society level – why they are there, why do they stay, why do they do what they do? (Bird & Wennberg, 2014; Zellweger et al., 2019) - in contrast to studies on

startups (Audretsch & Feldman, 1996; Audretsch & Link, 2012; Autio et al., 2014; Fritsch, 2013; Lehmann et al., 2019; Stam & van de Ven, 2021; Tsvetkova, 2015). There is a lack of research on interpreting and understanding the role family business play in local economic and social status-quo as well as their development over time or in a historical context (Baù et al., 2019; Lengauer & Tödtling, 2010) and why. Thus, the nexus between family business and regions still requires further research (Basco, 2015; Basco et al., 2020; Stough et al., 2015). This is in line with research i.e. on gatekeeper functions in technology transfer or innovation (i.e. Santos Francoso & VOnortas, 2022); thus family business like universities could have this function in rural areas and making the difference in development and innovation.

Still, there are compelling reasons suggesting congruence between the regional context and the particular type or manifestation of entrepreneurship. A burgeoning literature has identified the key role played by a place-specific entrepreneurial ecosystem in generating and nourishing viable entrepreneurial activity, typically in the form of new-firm startups. Family business is characterized by a set of values and priorities that are distinct from startups. However, this does not imply that family business is free from the influences of the local context. It is just that those local conditions and influences that matter for family business are not necessarily those that matter for startups. Thus, while both startups and family business are shaped by the local context, they are not influenced by the same conditions or in the same way. Local context matters, albeit differently between startups and family business. The particular ways in which the local context matters for family business are explained in Appendix B.

Moreover, we deliver regional effects resulting out of this behavior, thus our data show more effects of family business activity and productivity in the local entrepreneurial ecosystem: So what we see is, that whenever and wherever we find a higher share of family business – and especially holding true for the non-agglomeration regions, this is strongly correlated with a much higher offer of apprenticeships possibilities, to train young people, not to become un-employed or remain unskilled for the labor market (e.g. Audretsch et al., 2015). Instead, when we check for the regions with a higher share of startups this is to be correlated with the opposite.

The embeddedness of family business as one part of the continuum of entrepreneurship in a broader sense shows other effects, too. So where and when we detect a higher share of family business in regions, this is strongly correlated with a higher employment rate and less unemployment in a region. This delivers positive effects for the regions and the whole local economy and society. In contrast, where a higher share of startups is observed, the unemployment is higher and the employment rate lower. This is in line with the discussion of Kim & Kim (2021). Moreover, what can be delivered with our analysis, too, as an interesting result for policy makers and regional planners is, that, when there is a higher share of family business in a region, this is as well strongly correlated with a lower out-migration rate in those regions, thus, people remain in the regions they might be grown up and seem satisfied and happy. This might be due to the higher quality of the living conditions – like good income, value for money, high employment rate, long-term and quite safe employment, etc. (Stiftung Familienunternehmen, 2020). In contrast, in regions where there is observed a higher share of startups, the out-migration rate of individuals is much higher, so there seems to be a correlation with the opposite.

Finally, our study delivers the new insight, that where we can observe a higher share of family business, the overall household income in this region is higher. This offers a higher standard of living and better living conditions, i.e. another reason to stay in the region. In contrast again, where there is observed a higher share of startups this seems to be related to the opposite.

There are at least some clues suggesting that disparate local contexts are conducive to different types or manifestations of entrepreneurship. In particular, Table 3 links the two disparate types of entrepreneurship – startups and family business – with key characteristics of the region. For this purpose, correlation analyses were carried out with the important characteristics of the region for the 401 regions in Germany, delivering significant first insights and relations.

Those regions characterized by a higher share of apprenticeships, employment and household income also exhibit a higher prevalence of family business but lower startup rates. By contrast, those regions characterized by higher unemployment and outward migration tend to exhibit a lower prevalence of family business but greater prevalence of startups.

While this evidence is suggestive at best, it is consistent with the view that the geographic context matters for entrepreneurship, but that the way it matters for each particular type or manifestation of entrepreneurship may differ. Those regional conditions conducive to one type of entrepreneurship, say startups, may be more hostile to a different kind of entrepreneurship, such as family business. There may, in fact, be different types of local contexts that are conducive to some types of entrepreneurship while deterring other manifestations of entrepreneurship.

We leave it to future research to engage in the meticulous analysis to flesh out the causality and nuances in linking different manifestations of entrepreneurship to a specific locational context. Still, while startups and family business may be opposite sides of the same coin of entrepreneurship, they may be linked to considerable disparate local contexts.

4 Discussion

This paper contributes to the discussion on startups and family business, their spatial distribution and regional effects, embedded in (different) ecosystems and context. Moreover, the findings suggest that family business and new-firm startups represent the two extreme

Table 3 Family Business, Startups and Local Context

	Family business share	Startup share among all businesses (2016-2020)	Family businesses (per 100,000 inhabitants)	Startups (per 100,000 inhabitants)
Apprenticeships (per 1000 employees)	0.485**	-0.224**	0.483**	-0.190**
Unemployment rate	-0.430**	0.464**	-0.373**	0.170**
Employment rate	0.346**	-0.486**	0.184**	-0.396**
Out-migration rate	-0.229**	0.376**	0.088**	0.442**
Household income	0.291**	-0.245**	0.459**	0.129**

Significance levels: * $p < .05$, ** $p < .01$ (two-tailed); $N=401$ regions

Source: Own analysis & presentation based on data from (BBSR Bonn, 2021; Bureau van Dijk, 2021; Statistische Ämter des Bundes und der Länder, 2021; Statistisches Bundesamt (Destatis), 2021)

positions of a continuum of enterprises whereby the exact point of transition cannot be determined in advance but moving from a first generation into the second is a strong indicator (Chua et al., 1999). Thus, startups would be the beginning of the continuum, so reaching the second generation and developing some of the typical family business values – like regional embeddedness and responsibility – could enable them to become a family business in the core sense. Thus, the empirical evidence suggests that distinguishing between different types of entrepreneurship, such as startups and family business, enables a more nuanced and accurate depiction of both the prevalence and geographic location of entrepreneurial activity. A clear definition of family business as a particular manifestation of entrepreneurship, based on ownership, owner-management and generational hand-over, clearly shows, that not 98 or 95% of all businesses are family business but rather a much lower percentage as our data show or the study of Mandl (2008). So, their effects and contribution to employment, education and training or the GDP is much more specified. We follow with our more fine-grained definition not only Chua et al., (1999), but for example as well former studies dealing with labor markets, GDP or regional effects, discussing and proving this necessity as well (Backman & Palmberg, 2015 (only ownership and management); Basco 2015; Stiftung Familienunternehmen, 2020). Thus, entrepreneurship policies should focus on family business, too and this way (by taking into account a more sharp definition) should and could generate more focused and goal oriented policy measures and instruments.

These above-mentioned studies are the foundation for the following contributions of our study. With the fine-grained and still quantifiable definition of family business, and differentiating the regional location of startups and family business, we go beyond the existing startup literature and regional effects (Basco et al., 2020; Stough et al., 2015). We compare two different ends of the continuum of entrepreneurial activity and we show that both have their geographic clusters and specific spatial distribution. Moreover, we analyze this on a very local level and not only on a national wide or state level as former studies – if existing and dealing with regional effects – do (e.g. Basco & Ricotta 2020; Bjuggren et al., 2011) but on metropolitan municipalities (metro), urban municipalities (urban), and rural municipalities (rural), or even more precisely for Germany, the NUTS III classification corresponding to the (smaller) counties, and independent cities (European Union, 2020). In addition, we deliver empirical, quantitative insights going beyond the rare qualitative (Stiftung Familienunternehmen, 2020) or conceptional studies (Basco, 2015), delivering first insights, that family business are especially important in rural areas in regards to (better) living conditions, as reflected by employment, education and training, higher incomes, less unemployment, etc. Thus, this paper positively responds to the call of Chang, Chrisman, Chua & Kellermans (2008) as well as the renewed call of Basco, Stough, & Suwala (2020) to deliver answers regarding the relationship between family business and geographic space.

An additional key finding emerging from our research is that the inherent bias of entrepreneurship policy throughout the developed countries may obscure the missed opportunities for promoting and stimulating other types and manifestations of entrepreneurship, such as family business. While policies to promote new-firm startups reflect a growing consensus that entrepreneurship matters, the narrow focus on a singular manifestation or type of entrepreneurship may be congruent with the context of certain regions while constituting a mismatch for other spatial contexts.

It is no secret, that entrepreneurship has emerged as a policy priority across the globe. In an effort to combat a host of economic and social problems, ranging from unemploy-

ment to stagnant growth, a paucity of productivity and innovation, and the exclusion of marginalized demographic groups, public policy has turned to (startup) entrepreneurship. As the enthusiasm for entrepreneurial ecosystems eclipses the focus on older policy instruments such as clusters and the creative class, public policy has also embraced a mandate for entrepreneurship. But, by “entrepreneurship”, public policy typically refers to the startups or small (and medium sized) young firms, and more often than not, in high-technology industries or contexts (Audretsch, 2021). For example, the United States Small Business Innovation Research Program (SBIR) has a focus solely on innovative startups and small business. Similarly, the heralded EXIST program in Germany has an explicit mandate to foster university based innovative startups. In Germany we can find more than 300 federal or country level research measures, like incubators, accelerators, financing subsidiaries (BMW, 2021c) or low startup loan interest rates, and we can find for schools and universities programs like Junior, Gründerzeit, Exist to foster and support entrepreneurial thinking and starting a business, as well as High Tech (startup) Gründerfonds, Horizon 2020, SME instruments like KMU innovative (BMW, 2021a; European Commission, n.d.).

Regarding the support of family business, we can find only some particular programs to foster the succession process to make the transfer successful (BMW, 2021b) and some specific loans for individuals taking over a family business (KfW, 2021). But we do not find any campaigns or large programs like Exist to foster family business. The same holds true when looking at the EU level. There SMEs – defined by restrictive size threshold values (European Commission, 2003) and startups are fostered and supported with many programs. For family business, we cannot find such programs; moreover, any attempt to broaden the outreach of support programs for Mittelstand or family business has been denied – probably due to the problems of defining and identifying family business not on a quantitative base but following the mentioned qualitative aspects. Thus, it seems, effort and financial resources might be needed to develop a more precise and focused family business measurement and support. This is important in regards to research studies and results showing, that financial, political or any kind of support is mostly conducive to entrepreneurship and might vary depending on the amount and to which kind of entrepreneurship organization the support is given (Chowdhury et al., 2022).

The same impression comes into mind, when analyzing the coordinated and systematic efforts of research groups, consortia and world-wide surveys to provide measurements of entrepreneurship. The GEM initiative (www.gemconsortium.org) or the GEDI (www.thegedi.org) are long-term trend analysis and collaborations, to foster and understand the worldwide entrepreneurship attitude and activities, especially focusing on (innovative) startups. Initiatives of the International Monetary Fund (IMF) and the World Bank (www.doingbusiness.org) or other institutions like the United Nations and their Global Innovation Index (www.wipo.int/global_innovation_index), to measure the climate for setting up a new business or create innovation, go into the same direction. Nothing like this exists for family business, besides private organizations of family business themselves, like the Henokiens (www.henokiens.com) or the family Firm Institute (www.ffi.org). Only in a part of the surveys of the GUESS initiative (www.guesssurvey.org), students are asked in a worldwide questionnaire if they might take-over a family business. Thus, we do observe that policy, as well a systematic international measurement remains remarkably blind towards manifestations of entrepreneurship other than startups, such as especially family business. Here research and policy as well as statistical institutions remain quite silent. In fact, family busi-

ness as a different kind of entrepreneurial activity offers a very different approach, set of values and ultimately bestows different but certainly positive economic and social benefits than do new-firm startups. It is no secret that the landscape of some of the most flourishing regions of Europe, Asia or South America exhibit a prevalence of family business. The policy focus and understanding of entrepreneurship as new-firm startups in the technological realm, while ignoring the more diverse manifestations of entrepreneurship, poses a paradox. This raises the question why do policy, statistical institutions and frameworks, research consortia fixate pretty much on a singular manifestation of entrepreneurship and do not embrace family business? To our knowledge only the STEP group is a first approach to get more data on family business. Thus, we observe extreme measurement for startups as traditional entrepreneurship – and this might give a strong impact on research as well as policy measures. At the same time, we observe a huge gap in regards of family business. So out of our results we would recommend to follow the suggestions here, to define family business much less broad and to set up institutional settings to deal differently with family business and to get to know much more about them and their impact, environment, needs, etc. This way, potential focused support measures for family business might become realistic and from a monetary point of view financeable. For example, something like the “FAM – Family Business Monitor/FEM Family Entrepreneurship Monitor” could be imagined and set up. Only in this way politics can take suitable decisions. While the contemporary *Zeitgeist* emphasizing entrepreneurship policy may not be misguided, one size does not fit all.

Thus, our first insights regarding the family business rate (in relation to the number of inhabitants and the number of business) and their regional distribution, as well as the first effects in those regions we could observe, deliver a fruitful basis for further research: There are numerous businesses that are a family firm over their whole life course, after reaching the second generation. However, there might also occur changes from being a family business to non-family business and vice versa over the company life cycle due to external ownership or management issues, as well as the transformation into a later generation. To study the effects of these events and changes will be fruitful for theory and practice in family business and might deliver insights why family business vanish from regions or stay there. Moreover, from a historical or panel structured point of view it might be of interest to understand why family firms thrive and survive in some sectors or in some regions and in others not, or what might be attractive to family firms in regions and what not? Is it clusters? Industrial policy measures? Competitive advantages of regions or industries? Do the regional characteristics or resources and history have to do something with attracting, growing and sustaining family business, so special aspects of an ecosystem? How can family business be generated over time out of the startup cohorts; do startups have to be scaling- deep ventures to be able to become family business, or can any startup turn into this? Does there exist something like a family business ecosystem and what are the most important factors beyond those, we could show in this paper? Do formal or informal institutional settings affect the regional and sustainable presence of family business and in which combination and what way?

Could there be developed a similar model of ecosystems for family business like in Stam & van de Ven (2021) to measure the different factors of those ecosystems and compare their strengths and distribution of regions or for startups and family business and relate those results with the appearance of the different kinds of entrepreneurial activity?

5 Conclusions

Krugman's (1993) observation that economic activity tends to be spatially clustered triggered an explosion of interest in the geography of economic phenomena. This led to the highly cited conclusion by Glaeser (2014) that entrepreneurship is an urban phenomenon. While Glaeser's (2014) insight might hold for one important organizational manifestation of entrepreneurship, new-firm startups, when it comes to a different type of entrepreneurship, family business, this paper finds exactly the opposite. Family business do tend to be geographically clustered, but they are considerably less prevalent in cities and tend to be more spatially concentrated in less agglomerated areas and rural regions.

Thus, the characterization of Germany as exhibiting a lackluster entrepreneurship performance, as characterized by the Global Entrepreneurship Index (Acs et al., 2019), among others, reflects a one-dimension view of entrepreneurship with an exclusive focus on startups, while ignoring other organizational manifestations of entrepreneurship, such as family firms.

The findings in this paper suggest that much of public policy focusing on spurring entrepreneurship, particularly in disadvantaged less urban and rural regions, may be misguided. In particular, this paper suggests that, at least in the case of Germany, the context reflected by less agglomerated and rural regions may be more congruent with a different manifestation of entrepreneurship – family business. Such disadvantaged regions, whether within Germany or beyond, might be well be on the right policy track to focus on igniting entrepreneurship, but the type which is congruent with the institutional and cultural context – family business.

The oversimplification of classifying nations as burdened by sluggish entrepreneurship on the basis of a singular manifestation of a phenomenon with inherent multiple organizational forms can have real consequences. Research has found that identity and image can shape the behavior of decision makers both within a place as well as those beyond its borders. Thus, to (falsely) castigate and stereotype a place (country) as inhospitable to entrepreneurship can trigger a self-fulfilling cycle, where the depressed impact on entrepreneurial intentions results in less entrepreneurial activity, driving nascent entrepreneurs, both at home and abroad, from locating in Germany.

Rather, the findings of this paper from analyzing the geography of family business in Germany suggest that the country may be, in fact, far more conducive to entrepreneurship than has been claimed in the extant literature. However, the particular manifestation of entrepreneurship exhibits considerable spatial variation, with family business playing a predominant role in less urban and more rural regions, and new-firm startups exhibiting a greater prevalence in the agglomerated urban areas. An important opportunity for future research will be to identify and measure other types and manifestations of entrepreneurship, and compare them for a fuller analysis of not just what the geography of entrepreneurship actually looks like but also what drives and shapes it.

When it comes to cross-national comparisons, this paper presents the challenge of comparing apples to oranges. While it is possible to compare each particular manifestation of entrepreneurship in a cross-national context, the challenge of aggregating all of the multiple manifestations of entrepreneurship have not only eluded the scrutiny of researchers but has hardly been addressed. We look to future research to develop meaningful constructs to

compare the broader sense and meaning of entrepreneurship across different national and institutional contexts.

Appendix A Sources of Data and Measurement of Family Business

To deliver new and surprising insights, we use the following four data sources for the different analyses. Those are: (1) The Amadeus database from Bureau von Dijk (2021), (2) GENESIS (Common new statistical information system) - a database from the German Federal and State Statistical Office (2021), (3) GV-ISys (municipal directory information system) organized by the German Federal Statistical Office (2021), (4) the INKAR (indicators and maps of spatial and urban development) database of the German Federal Office for Building and Regional Planning (2021). The individual data sources allow access to data from 2017 to 2021. Due to the different sources and the different reporting dates to the government agencies and their publication dates, the actuality of the data varies. For the analysis in this paper of long-term effects, an annual fluctuation in this 4-year range is not relevant. In the following it is explained in which way those data sources are used and worked with.

To assign the data to the regions and in order to achieve comparability of the regions, the regional classification of the data is based on the NUTS III (Nomenclature of Territorial Units for Statistics) classification of the EU. In Germany, the NUTS III classification corresponds to the (smaller) counties, and independent cities (European Union, 2020).

The concept of entrepreneurship is generally operationalized and measured as startups and newly founded (innovative) small and medium sized enterprises. This approach has been chosen for a long time by both the media as well as in policy debates, the discussion among regular people and between researchers as well, even now changing somehow and enlarging this viewpoint more and more (Audretsch, 2021; Birch, 1981). Thus, here we follow this approach, measuring all new-firm startups in a region during the timeframe mentioned. For the number of startups, data from the GENESIS database of the German Federal and State Statistical Offices were used (Statistische Ämter des Bundes und der Länder, 2021). This is a complete database for Germany, as it contains the compulsory registrations of startups. For this purpose, we have chosen the startups of companies with greater economic significance. - This is defined as the establishment of a business (main establishment, branch establishment, dependent branch establishment) by a legal entity, a company without legal personality (partnership) or a natural person. In the case of a natural person registering a principal place of business, it is a requirement that the natural person either be registered in the Commercial Register or hold a craftsman's certificate or employ at least one employee" (Statistisches Bundesamt (Destatis), 2020, p. 4). In order to analyze the long-term development of the number of startups, a 10-year period from 2011 to 2020 was considered. Since data for 2017 is missing for the regions Bremen and Bremerhaven, the data points were supplemented by the mean values of 2016 & 2018. In this way, we are dealing with 1,270,244 startups in Germany in the period 2011–2020.

To get information and data on family business the chosen definition approach is discussed briefly in the following, making it then possible to identify family business in the database of Amadeus. Up to now, no overall and general definition of family business is existing (Ruf et al., 2021). But most formal institutions or policy agencies as well as still a lot of researchers, take into account (only) two important aspects of the characteristics of

family business: The business part – managing the enterprise – as well as the ownership aspect (Dyer, 2006, pp. 254–257). Combined this constitutes the so-called family effect of having a direct or indirect impact on how the business is governed and run (Broer et al., 2008; Keese et al., 2010; Klein, 2004; Stamm & Lubinski, 2011). But the variance of this interpretation is as big as the heterogeneity of family business itself; so those definition approaches vary from necessary 100% unity of ownership and management through family involvement in any kind, until the possibility of external management (chosen and controlled by the owning family) with ownership shares of 10–25% (Rossaro, 2007).

When following this classification based on only management and ownership majority (meaning more than 50%) in the hands of one or some families this would result in almost all of the businesses in our database to be classified as a family business, not enabling a significant distinction in the general and the spatial variance between startups and family firms: almost all startups would be included in this family business definition (besides venture capital financed ones). On top of this, most studies mention that family business are not only small or medium sized enterprises, but can be large or mature companies (like so-called Hidden Champions or being part of the Fortune 500 (Dyer & Whetten, 2006)). This shows the heterogeneity of family business regarding size as well as the dilemma that no official statistic or definition exists to measure the real rate of family business exactly. And thus, this is exacerbating the extent of family business worldwide and creates a policy challenge of targeted measures. Even worse it is almost impossible to evaluate their particular contribution to an economy or society.

Therefore, many academic studies as well as policy makers and policy consulting institutions (Mandl, 2008; Ruf et al., 2020) take into account another important characteristic of family business - overlapping with familiness, ownership and management (Astrachan et al., 2002; Davis, 2001; Habbershon et al., 2003, p. 20,003; Tagiuri & Davis, 1996): their willingness to sustain, maintain and hand-over the business in their region to a second, third or further generations (Rau et al., 2019; Ruf et al., 2021). This notion of ‘generation’ has surprisingly often been over-looked (Rovelli et al., 2021). It should be emphasized that in the term family business, the family as word is explicitly highlighted as a salient feature in the cultural context: Families are still seen as a long-term construct, holding together for a long time – over generations (Dyer, 2006; Gersick et al., 1997; Rossaro, 2007; Zellweger et al., 2012). And that this generational definition approach is helpful and necessary to underline research results worldwide, that many businesses and startups do not even make it into a second generation. As Ward (2011) showed for the US – as well as Jaskiewicz, Gonzales, Menendez and Schiereck (2005), Lea (1991), or Handler & Kram (1988), only 30% of Businesses make it from the first into the second generation, and only 13% from the second into the third one. Focusing on German, Swiss and Austrian family business, the rates are higher: 50 to 65% make it into the second generation, 35% into the third and almost 15% into the fourth (Hennerkes, 1998; Mandl, 2008; Mertens, 2009), creating the distinction between starting businesses and becoming a multi-generational family firm (Barnett et al., 2021; Jimenez et al., 2021). A generation is defined here as 25 years of existence (Gersick et al., 1997; Zellweger et al., 2012). This generational, sustainability aspect makes a difference in running and managing a family business, and therefore it is necessary taking into account this aspect in the general family business definition (Miller et al., 2007). Therefore, numerous studies, including ours, follow Chua et al., (1999) definition of family business: “The business has to be **governed and/or managed** with the intention to shape and pursue

the vision of the business **held by a dominant coalition** controlled by members of the same family or a small number of families in a manner that is **potentially sustainable across generations of the families.**” (Chua et al., 1999, p. 25).

For the identification and distribution of family businesses, the Amadeus database with data as of July 2021 was used (Bureau van Dijk, 2021). All active companies from Germany were used for the analysis. However, companies with foreign or unknown legal forms, non-profit organizations and public authorities were excluded. The sample drawn from the database contains a total of 321,555 companies. In order to make the dataset usable for the analysis, the information on the year of establishment had to be standardized and for some companies, the information on the region had to be supplemented by the postal code available in the dataset or had to be searched for. We worked on the basis of the 2020 NUTS III regions (European Union, 2020) and corrected missing or incorrect regions in the database via the postal code. The classification as a family business was based on the discussed criteria: (1) The company has to be owned by one/several persons or families known by name, with a share of all shareholders together between 50% and 100%. (2) The directors or managers have to be family members and shareholders. (3) The company must exist for at least 25 years (Chua et al., 1999). Following this definition and the generational approach, where every 25 years constitutes a new generation, the number of cases in the database diminishes to 84,110 companies; this decrease in the number of more specified businesses is in line with the rare studies measuring family business in the same way (Mandl, 2008).

Additional data sources were used to put the data on family businesses and startups in relation to regional demographic and social factors. For the size of the population, the GV-ISys municipal directory information system of the German Federal Statistical Office was used, with data of September 2020 (Statistisches Bundesamt (Destatis), 2021). For the number of apprenticeships per 1,000 employees covered by social insurance 2017, the unemployment rate, employment rate, out-migration rate and household income, the INKAR database of the German Federal Office for Building and Regional Planning was used (BBSR Bonn, 2021).

Appendix B Family Business and Local Context

The goals and values of family business differ from those of their counterparts (Aparicio et al., 2017). They tend to have a long-term rather than short-term orientation (e.g. Bird & Wennberg 2014; Zellweger et al., 2019) and embeddedness in the local community (Basco, 2017; Dyer, 2003; Habbershon et al., 2003; Soleimanof et al., 2018; Stough et al., 2015).

According to (1973) or more recently Hess (2004): embeddedness means that family businesses engage in a specific, geographically defined space or what could be characterized as a regional (entrepreneurial) ecosystem. The business entities are affected by their activities in the local areas and regions not only on a business or economic but as well on the societal level. Economic embeddedness includes interactions and relations with regional customers, suppliers, sub-contractors, etc., but also that the players are actively involved in regional social networks; often this delivers access to knowledge, skilled employees, technology, or political contacts and influence (Clifton et al., 2011; Lengauer & Tödtling, 2010). On the societal level embeddedness means the interaction and relation with stakeholders and other players in the local society (intermediaries, politicians, administration, role mod-

els) being a part of the local community, their values and local culture (Baù et al., 2019; Bürcher, 2017; Clifton et al., 2011; Dequech, 2003). All these mentioned factors could be summarized in the factors regional ecosystems argue with (Stam & van de Ven, 2021).

To obtain a more hands-on insight what this embeddedness and familiness with a long-term orientation might mean, this idea embraces, that family business and especially their decision-making owners have personal values (Ruf et al., 2020). Following those values, their behavior is affected resulting in socioemotional wealth (SEW) actions (Berrone et al., 2012) and setting corporate social responsibility (CSR) management goals and activities (Carroll, 2009; European Commission, 2002, 2009), which are not solely following economic principles and profit making, but showing a responsibility towards their values (Grözinger et al., 2021; Ruf et al., 2021) and thus often meaning towards their home region (Basco, 2015; Zellweger et al., 2010).

Regardless which of the three approaches are taken into account, all deliver the drivers of the regional embeddedness and activities of family business (Ruf et al., 2021). Starting with the basic and underlying values (Schwartz, 2012), researchers find, that fundamentally, the value of benevolence focuses on the welfare of people with whom one is in frequent personal contact. Schwartz (2012) stated that relations within the family are most critical but can include other primary groups. As Ruf et al., (2020) or Grözinger et al., (2021) show, this value specifically embraces local responsibility and wanting to give something back to the community where the family business could start and thrive. Ruf et al., (2021) provide a strong connection and impact of this specific value of benevolence on the SEW behavior of family business owners and their firms.

The literature of SEW (Berrone et al., 2012) differentiates the behavior in specific activities and factors, with one of them being important for the relationship issues and thus as well for the regional connectivity. Out of the five factors measuring SEW (Berrone et al., 2012), the factor of benevolence mostly influences the behavior described as factor B “binding social ties”. Again, this is not only including family members but as well customers, suppliers, community members and local actors – thus trusted networks and strong ties (Berrone et al., 2010; Cruz et al., 2012; Miller et al., 2009; Uhlaner, 2006). In a study of Naldi et al., (2013), long-term relationship in a local area is considered as a typical aspect of family dynasties.

Other authors name these long-term (local) relations and social capital “community citizenship” (Baù et al., 2019; Bird & Wennberg, 2014) resulting in a durable local engagement and commitment: this is nothing other than a strategic decision to act responsible and social as a corporation. corporate social responsibility (CSR) includes again different aspects of strategic importance like” The social responsibility of businesses encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time” (Carroll, 1979, p. 500). But here this is connected to activities in the local community, decomposed into corporate giving, corporate volunteering, and corporate support (Hohn et al., 2014; Vilain, 2010). Corporate giving (one event or frequently) includes financial engagement or material donations like sponsoring (arts or social events), or supporting different kinds of institutions, associations, or clubs (sport, arts, theater), as well as non-financial support for kindergartens and types of school activities. Corporate volunteering offers employees free days to work longer on social projects or to spend some time on social activities of the whole company. Finally, corporate support is a collection of mostly strategic activities, like engagement in local development policies or projects (muse-

ums, community building, starting a foundation, etc.). Even though many studies elaborate that family business do not even name or relate what they do as CSR or corporate citizenship, they act like this due to their values and historical responsibility (Fassin et al., 2011; Murillo & Lozano, 2006), following main motives to act especially on a regional level (Gallo, 2004; Vives, 2006).

Summarizing this discussion, specifically, long-term orientation of strategic decisions (Bird & Wennberg, 2014; Zellweger et al., 2019), responsibility for employees and communities (Campopiano et al., 2014; Gallo, 2004), and the awareness of local reputation and status (SEW) (Chrisman et al., 2012), taken together, bestows family business as particularly willing to cooperate through local engagement driven by their core values (Campopiano et al., 2014), and strong degree of local embeddedness (e.g. Campopiano et al., 2014; Ge & Micelotta, 2019). This matches the ‘value creation’ or ‘output’ of entrepreneurial activity in the ecosystem approach (Stam & van de Ven, 2021). Thus, the aforementioned characteristics deliver insights as to why family businesses are distributed so much more locally and can be found in rural and peripheral regions and remain and stay there over generations (Baù et al., 2017; Stough et al., 2015).

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