

Misperception of entrepreneurship and its consequences for the perception of entrepreneurial failure – the German case

Entrepreneurial
failure

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Abstract

Purpose – This study aims to investigate how Germans' misperceptions of the nature of entrepreneurship influence their attitudes towards entrepreneurial failure.

Design/methodology/approach – Adopting a multivariate regression analysis, the study used data collected from a commercial online market research panel ($N = 2,027$) reflecting the overall German working population. Attitudinal items on business failure were used to measure the study variables. The study controlled for age, education, employment status, gender, income, whether the respondent knows a failed entrepreneur and the German federal state in which the respondent resides.

Findings – The findings suggest that reservations about failed entrepreneurs become stronger as misperceptions of the nature of entrepreneurship worsen. The results also show that failure reservations vary regionally over the 16 German federal states.

Practical implications – Nationwide efforts regarding the stimulation of entrepreneurship and the acceptance of entrepreneurial failure are insufficient for removing failure reservations, as they neglect regional cultural differences. The results suggest that it is not enough just to invest in efforts to create a failure-friendly culture, and that a better general education about the realities of entrepreneurship is a prerequisite.

Originality/value – The study generates insights into how the overall population in an innovation-driven economy perceives entrepreneurship and entrepreneurial failure. Moreover, the work delves into the reasons why parts of German society reject failed entrepreneurs. Hence, this study can aid the drafting of effective policy initiatives at the regional and national levels.

Keywords Entrepreneurship, Failure, Perception, Germany, Culture

Paper type Research paper

1. Introduction

Why do some countries such as Germany never quite fulfil their obvious entrepreneurial potential? Researchers, policy-makers and individuals widely recognise the great importance of entrepreneurship for economic development, job creation and innovation in a country (Lee *et al.*, 2011). In contrast to other innovation-driven economies, such as the USA, the number of companies founded in Germany have been falling for several years, despite an economy that was strong and stable for a long time, which should actually benefit entrepreneurship (Kalden *et al.*, 2017; KfW, 2018). This places Germany among the countries with the lowest

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rate of business start-ups worldwide and prompts questions about the potential reasons for this apparent inconsistency. According to the latest results of the Global Entrepreneurship Monitor (GEM) and the GEM country reports, Germany ranks 28th out of 33 comparable high-income countries with a start-up rate of 7.6%. The large gap between Germany and countries with similarly high incomes, such as the USA and Canada, whose share of founders among the 18- to 64-year-old population in 2019 was 2–5 times higher than that of Germany, is particularly remarkable (Sternberg *et al.*, 2020). The economic conditions of a country or region do not influence the level of entrepreneurial activity alone (e.g. Diez-Martín *et al.*, 2016), instead the societal and cultural context in which entrepreneurship takes place also affects the entrepreneurial activity (e.g. Cardon *et al.*, 2011; Grichnik, 2008; Kuckertz *et al.*, 2015; Ruda *et al.*, 2012).

The failure culture, or more precisely the attitude with which failed entrepreneurs are encountered in a country, and the institutional settings resulting from this attitude are, for example, important framework conditions for entrepreneurial endeavours (e.g. Cope *et al.*, 2004; Grichnik, 2008; Kibler *et al.*, 2017; Landier, 2005; Mittelstands Monitor, 2007). In contrast to Anglo-Saxon countries, Germany has a reputation for not granting failed entrepreneurs a second chance and thus making it more difficult for them to recover from failure or to start subsequent new ventures (Mittelstands Monitor, 2007). Furthermore, Germans generally are more risk-averse and afraid of failure than some other nationalities (Sternberg *et al.*, 2004).

However, this fear might have been ill-founded for many years, given that only a minor share of discontinued businesses eventually became insolvent (KfW, 2018) and the number of insolvencies has been decreasing for some years – especially among new ventures (Creditreform, 2017). This situation reveals a lack of understanding what could explain the German society's fearful attitude towards failure – or failure reservations – regarding the founding of new ventures, despite the low numbers of actual failures. Shedding light on the antecedents of German's failure reservations becomes even more important in light of the COVID-19 pandemic. The pandemic has caused a worldwide health and economic crisis, putting pressure on entrepreneurial family business (Kraus *et al.*, 2020), innovative start-ups (Kuckertz *et al.*, 2020) and the solo self-employed (Block *et al.*, 2020) and is likely to cause rising failure rates in Germany and around the globe.

Current entrepreneurship research on cultural contexts shows great advances, for example, with regard to how cultural dimensions that prevail in a country affect the activities of nascent, opportunity-driven entrepreneurs (e.g. Kuckertz *et al.*, 2015; Yan and Guan, 2019) or the level of entrepreneurship within a country in general (e.g. Fernández-Serrano *et al.*, 2018). However, knowledge of how public audiences from different countries or regions perceive the nature of entrepreneurship remains limited, and it is unclear how these perceptions influence the attitudes towards entrepreneurial failure in terms of failure reservations and how perceptions and attitudes differ within particular regions of a country, rather than across the country as a whole. The present paper addresses this lack of research by scrutinising a representative sample of the overall German population and by answering the following research questions: How do Germans' perceptions of the nature of entrepreneurship influence their attitudes to entrepreneurial failure? And, do these perceptions and attitudes differ regionally? The *nature* of entrepreneurship refers to entrepreneurial opportunity recognition and exploitation (Kuckertz *et al.*, 2017) under risk, making entrepreneurial failure not only an option but also a central and natural element of any entrepreneurial activity. An analysis of the responses from 2,027 survey participants suggests that failure reservations are particularly attributable to misperceptions of the nature of entrepreneurship, and that failure reservations vary within the German federal states.

The present work offers a number of important contributions. In using the example of Germany, the evaluator perspective on entrepreneurial failure is advanced (Shepherd and Patzelt, 2017) by generating insights into how both entrepreneurship and entrepreneurial

failure are perceived by the overall population in an innovation-driven economy. The present work also delves into the reasons why parts of German society reject entrepreneurs whose businesses have failed. Hence, the study suggests an indirect approach to removing reservations about entrepreneurial failure by educating people on the realities of entrepreneurship. In this regard, the present study could aid the drafting of effective policy and educational initiatives at the national and regional levels within a country. Policymakers and educators should pay greater attention to the individual perceptions of entrepreneurship as an important determinant of entrepreneurial attitudes and the attitudes to certain potential outcomes of entrepreneurial activity, such as entrepreneurial failure, to enhance a country's entrepreneurial culture while educating people about the true nature of entrepreneurship.

2. Theoretical background

2.1 Cultural and regional dimensions of entrepreneurship

There is increasing recognition in the entrepreneurship literature that various aspects of the contextual environment in which entrepreneurship takes place may have a huge impact on entrepreneurial activity (Belló *et al.*, 2018; Hundt and Sternberg, 2014). The literature describes entrepreneurial activity as a multilevel phenomenon that includes spatial dimensions (national, regional and local environments) (e.g. Berger and Kuckertz, 2016; Valliere, 2017), social dimensions (micro-level of family, friends and all kinds of networks) (e.g. Belló *et al.*, 2018) and the time dimension (Hundt and Sternberg, 2014). This paper focuses particularly on the spatial dimension of entrepreneurial activity, and more precisely, on the cultural and regional environment of entrepreneurial endeavours. As the following paragraphs outline, empirical findings on the relevance of cultural and regional contextual factors as well as the German particularities with regard to failure attitudes and regional differences linked to the geographical extension of the country provide grounds for this research design.

2.1.1 Cultural dimension of entrepreneurship. Cultural aspects are a major factor in shaping the environment in which an entrepreneurial activity takes place (Freytag and Thurik, 2007). The impact of cultural factors on the level of entrepreneurial activity has attracted a great deal of research attention (Cardon *et al.*, 2011; Grichnik, 2008; Ruda *et al.*, 2012). Scholars have used cultural constructs from the work of Hofstede (1980) and Inglehart (1997) to predict proxies for entrepreneurship, such as levels of self-employment or innovative activity, while also considering the cultural traits, such as uncertainty avoidance, that are expected to influence attitudes to certain outcomes, such as failure (Shane, 1993). According to Hofstede (1983, p. 76), culture is “the collective programming of the mind that distinguishes the members of one group or category of people from another”. This so-called collective programming usually happens early in life (Hofstede, 1980) and leads to behavioural patterns, which ultimately set the cultural context (Freytag and Thurik, 2007; Hofstede, 1980; Mueller and Thomas, 2001).

Following the definition of culture proposed by Hofstede (1983), an entrepreneurial culture or a culture of entrepreneurship can be seen as an informal institution that unites norms, values and codes of conduct (Baumol, 1996; North, 1990). Furthermore, an entrepreneurial culture is characterised by a high level of social acceptance and approval of entrepreneurship (Kibler *et al.*, 2014). Hence, entrepreneurial activity varies across countries due to different cultural values and beliefs, with some cultures being more closely aligned with entrepreneurship than others (e.g. Fernández-Serrano *et al.*, 2018; Mueller and Thomas, 2001; Yan and Guan, 2019).

Empirical research shows that informal institutions are difficult to change, and that any change that can be triggered will be slow (North, 1990; Williamson, 2000) – unless the citizen

is isolated from his or her culture (Hofstede, 1983). The same applies to cultural programmes (Hofstede, 1983); however, formal institutions (e.g. property rights), governance structures and resource allocation change far more frequently within a certain context and can be viewed as embedded in the informal institutional framework (Freytag and Thurik, 2007). Welter (2007) suggested that formal institutions can be understood as institutions that create opportunity fields for entrepreneurial activity, whereas informal institutions define the opportunity perceptions of a society and its members.

2.1.2 Regional dimension of entrepreneurship. A number of empirical studies show that both the national and regional environments can influence entrepreneurial activity (e.g. Hundt and Sternberg, 2014; Röhl, 2019). Hence, an entrepreneurial culture can vary significantly between regions (Hundt and Sternberg, 2014; Röhl, 2019; Sternberg and Rocha, 2007) within a country, regardless of whether uniform formal institutions exist nationally. This also applies to the entrepreneurial activity within the regions, which can exemplify persistent differences over time (e.g. Andersson and Koster, 2011; Armington and Acs, 2002; Audretsch and Fritsch, 1994; Bosma *et al.*, 2008; Fritsch and Falck, 2007; Fritsch and Mueller, 2008; Fritsch and Wyrwich, 2017; Johnson and Parker, 1996). Hence, entrepreneurship as such is regarded as a regional event in the literature (Feldman, 2001; Stam, 2007; Wyrwich *et al.*, 2016), where the entrepreneurial activity arises from the surrounding regional environment (e.g. Audretsch *et al.*, 2012; Pierre-André, 2019; Weiss *et al.*, 2019).

Research on the regional dimensions of entrepreneurship has attempted to demonstrate the important role entrepreneurial activity plays in the development of a region within a country. As the traditional focus of entrepreneurship research lies on the individual (Fritsch and Mueller, 2004; Kibler *et al.*, 2014; Mueller *et al.*, 2008; Van Stel and Storey, 2004), research at the regional level also attempts to identify regional characteristics that influence entrepreneurial activity at the individual level (Armington and Acs, 2002; Fritsch and Falck, 2007; Kibler *et al.*, 2014; Reynolds *et al.*, 1994; Röhl, 2019). Alongside work on demographic, structural and economic aspects of regions, researchers have also investigated how the regional culture determines the entrepreneurial activity within the region (Aoyama, 2009; Davidsson and Wiklund, 1997; Fritsch and Wyrwich, 2014; Kibler *et al.*, 2014; Weiss *et al.*, 2019). Furthermore, a small but growing number of studies aggregate data at the regional level with individual-level data to point to the relevance of regional factors in explaining entrepreneurial attitudes, entrepreneurial intentions and engagement in new venture creation (e.g. Bergmann and Sternberg, 2007; Mueller, 2006; Tamásy, 2006; Wagner and Sternberg, 2004). For example, research results show that regional characteristics can influence an individual's fear of failure and forestall entrepreneurial activity (e.g. Bergmann, 2005).

Audretsch and Keilbach (2007, p. 354) referred to a region's "capacity to generate entrepreneurial behaviour in general, and the start-up of new firms in particular" as the region's entrepreneurship capital. The special feature of the definition of entrepreneurship capital is that it comprises not only the set of economic opportunities and human capital that is beneficial for entrepreneurship and entrepreneurial activity but also institutions, value sets, (cultural) traditions and habits (Audretsch and Keilbach, 2007). Accordingly, regional perceptions of entrepreneurs and the attitude of the local population to risk, business failure or economic success are regional cultural characteristics potentially relevant to entrepreneurship and entrepreneurial activity (Stuetzer *et al.*, 2014). Hence, entrepreneurship capital is considered a locally bounded phenomenon that is driven by local culture and should, therefore, be measured within a city or region (Audretsch and Keilbach, 2007). Furthermore, Stuetzer *et al.* (2014) assumed that potential founders of new ventures have a feeling for a region's entrepreneurship capital, meaning that if they perceive entrepreneurship capital to be at a high level, they will be more likely to establish a new venture.

2.2 Entrepreneurship in Germany

The present study focuses specifically on entrepreneurship in Germany. The German economy is known for being very strong and stable. After the financial crisis of 2008–2009, Germany recovered quickly, showing that the German economy is a leading economy in Europe (Audretsch *et al.*, 2015; Dustmann *et al.*, 2014; Kalden *et al.*, 2017). In addition, compared with other (innovation-driven) economies outside of Europe, such as the USA, Germany shows its strength and competitiveness (Kalden *et al.*, 2017), which might have prepared it well for its recovery from the COVID-19 crisis as well.

The comparable economic growth and development rates of Germany and the USA create expectations that they will demonstrate similar levels of entrepreneurial activity. However, despite Germany's strong and stable economy, the number of new ventures being founded in Germany have been falling for several years compared to in the USA (Kalden *et al.*, 2017; KfW, 2018). Recent figures on the total early-stage entrepreneurial activity (TEA) in Germany reveal an average of 7.6% compared to 17.42% in the USA (GEM, 2020; Sternberg *et al.*, 2020). Furthermore, recent research results show that the number of companies founded in Germany is continuously falling (KfW, 2018), putting Germany among the countries with the lowest rates of business start-ups worldwide (Sternberg *et al.*, 2020). However, Germany needs founders of new businesses to strengthen the competitiveness of the German economy and maintain a high level of innovativeness (Tamásy, 2006).

The low level of entrepreneurial activity in Germany might be due to the widespread fear of failure in Germany, which is reported to remain relatively high and stable over time compared with international rates. Fear of failure and potentially the stigma of failure would deter 36% of Germans from starting a business (KfW, 2018).

Germany's weakness regarding the founding of new ventures might also have a cultural and/or regional dimension (Kuckertz *et al.*, 2015; Röhl, 2016). Although Hofstede (1983) did not explicitly focus on the relationship between culture and entrepreneurial activity, his work is helpful in determining the key aspects of a culture that affect entrepreneurial activity within a country (Mueller and Thomas, 2001). According to Hofstede (1983), the German culture is characterised by a strong uncertainty avoidance. Therefore, when it comes to entrepreneurial activity, Germans are more risk-averse, have a rather negative attitude to new ventures and are afraid of failure (Sternberg *et al.*, 2004); hence, they show failure reservations, which consequently trigger negative perceptions towards the idea of founding a new company (Röhl, 2016). Furthermore, even in a country like Germany with comparatively low interregional economic disparities (Hundt and Sternberg, 2014), the regions are not at all homogenous (Hundt and Sternberg, 2014; KfW, 2018), meaning that the regional context also plays a crucial part regarding entrepreneurial activity in Germany. This is also evident from the differences of the level of entrepreneurship in East and West Germany (a differentiation based on German history). Even almost three decades after the reunification of the mature market economy (West Germany) and the former socialist economy (East Germany), East German regions regularly feature at the bottom of entrepreneurial activity rankings (KfW, 2018). This trend reflects the fact that entrepreneurship remains less accepted in the eastern part than in the western part of Germany, which can be traced back to the socialist legacy of East Germany (Wyrwich *et al.*, 2016). Against the background of the theoretical arguments outlined above, it is hypothesised:

- H1. The perception of entrepreneurship and entrepreneurial activity varies within a country and/or cultural context.

2.3 Entrepreneurial failure and the misperception of entrepreneurship in Germany

Entrepreneurship naturally involves accepting risks, and because risk indicates not only growth potential but also the potential to lose something, starting a promising new venture is

closely tied to potential entrepreneurial failure. Facing the prospect of failure is an inevitable and significant outcome of being involved in the start-up environment (Cope *et al.*, 2004). Although businesses begin with the expectation that they will survive (Shepherd *et al.*, 2000), research shows that a significant proportion of new ventures fail (Headd, 2003; Wiklund *et al.*, 2010). Accordingly, entrepreneurial failure is an important phenomenon in entrepreneurship (Cardon *et al.*, 2011) and one that is increasingly recognised given its implications for entrepreneurs and their role in society (Singh *et al.*, 2015).

Failure is often viewed as something to be avoided because it can be “painful and costly, can generate vicious cycles of discouragement and decline, and can obviously be mismanaged” (McGrath, 1999, p. 16). Entrepreneurial failure may also be an emotional and traumatic experience (Cope, 2011; Shepherd, 2003) because an entrepreneur’s identity is closely interwoven with his or her venture (Cardon *et al.*, 2005). However, failure may also be functional, in that it can provide opportunities from which entrepreneurs can learn (Corbett *et al.*, 2007; Shepherd, 2003; Walsh and Cunningham, 2017; Lattacher and Wdowiak, 2020) and can, thus, prompt entrepreneurs to improve their entrepreneurial competence (Espinosa-Benavides and Díaz, 2019), which can have an impact on further economic and business development (McGrath, 1999).

The concept of failure itself is hard to define (Fredland and Morris, 1976; Scott and Lewis, 1984) because it has been specified and operationalised in many different ways. However, providing a clear definition of failure is important because it enables comparisons across studies and influences the nature of outcomes and processes that researchers observe. This paper follows the definition of business failure suggested by Ucbasaran *et al.* (2013, p. 175) as “the cessation of involvement in a venture because it has not met a minimum threshold for economic viability as stipulated by the entrepreneur”. The definition is comprehensive and explores failure from the entrepreneurship perspective, meaning that it relies on the entrepreneur’s expectation of economic viability to dictate if the definition is met (Walsh and Cunningham, 2016). This definition also illustrates that venture failure is a defining moment in the life of any entrepreneur (Mandl *et al.*, 2016).

The literature on entrepreneurial failure shows that differences exist in the way individuals and societies in different geographical regions experience and tolerate entrepreneurial failure (Cardon *et al.*, 2011). These differences have implications for the level of entrepreneurial activity that occurs within a country or region and influences the acceptability of entrepreneurship as a viable career path (Cardon *et al.*, 2011; Davidsson, 1995; Landier, 2005).

The willingness to take on manageable risks when starting a venture (Koe, 2016), and the uncertainty and acceptance of the possibility of entrepreneurial failure (Shepherd and Patzelt, 2017) with all its consequences (Cassar, 2007; Ruda *et al.*, 2012) being central to entrepreneurship contrast with the cultural background of German society, leading most Germans to avoid risky endeavours (Hofstede, 1983). The uncertainty associated with founding a new company, as well as potential entrepreneurial failure, is perceived negatively by many Germans (Röhl, 2016; Sternberg *et al.*, 2004). Moreover, entrepreneurs with a failure in their history often face negative attitudes (Wagner, 2002; Wyrwich *et al.*, 2016). As a consequence, many people in Germany appear to be fearful of the obstacles and risks associated with founding a new venture even before they have assessed the pros and cons of self-employment in detail (Röhl, 2016). Consequently, a certain misperception of the nature of entrepreneurship in Germany is assumed. It seems that there is a lack of comprehension among German society of what entrepreneurial activity involves (Cope *et al.*, 2004; Panwar *et al.*, 2014). Germans do not seem to perceive entrepreneurship as a process that requires entrepreneurs to assume risk and one that inherently carries the possibility of failure (Koe, 2016). Given that Germans’ perceptions of the nature of entrepreneurship seems mistaken and/or distorted, the following hypothesis is posited:

H2. The stronger the individual's misperception of the nature of entrepreneurship, the stronger the individual's failure reservations.

3. Methodology

For the present study, 2,027 representatively selected German residents aged between 18 and 67 years were surveyed online with the help of a commercial service provider. This service provider allows to potentially access 1.3 million panellists in Europe, with an emphasis on the German market. The panel has been used for market and academic research successfully over the past two decades. Hence, it became possible to invite survey participants corresponding to the German average working population according to gender, age and origin (at federal state level). While absolute representativeness for the data cannot be claimed, it is nonetheless approximated as closely as possible through this particular means of data collection. The resulting sample is slightly older than what is known about the German working population (44 vs 48 years in the sample) and slightly more female (51 vs 53% in the sample) (Destatis, 2020).

Three attitudinal items on business failure from the German version of Eurobarometer (2002) were used against the background of the following framing: "Now we are interested in how you see entrepreneurs who have failed with their business". Participants were asked to respond on a seven-point Likert-scale (1 = strongly disagree; 7 = strongly agree). The dependent variable *failure reservations* reflects the perceptions of entrepreneurship and entrepreneurial activity in terms of failure reservations while capturing the attitudes towards failed entrepreneurs. The variable is measured using two items adopted from the Eurobarometer (2002) study: "I would be less inclined to order goods from someone who has already failed in business" and "I would never invest money in a business managed by somebody who has already failed in the past" (Cronbach's alpha: 0.67).

The independent variable *misperception of entrepreneurship* captures an individual's tolerance of risk in the light of failure. Hence, the variable addresses the central elements of the nature of entrepreneurship such as uncertainty, risk and the possibility of entrepreneurial failure on the societal level, with the single item, "One should not start a business if there is a risk it might fail". This item is also used as a risk tolerance measure in studies by both Grilo and Irigoyen (2006) and Kautonen *et al.* (2014). The labelling of the independent variable as *misperception of entrepreneurship* in the present study can be attributed to the assumption that entrepreneurship and the risk of failure go hand in hand. Hence, if an individual agrees to the statement "One should not start a business if there is a risk it might fail", he/she seems to not understand what entrepreneurship is about. Hence, the individual seems to have a misperception of entrepreneurship.

Furthermore, as controls, variations by individual respondent characteristics such as age, education, employment status, gender, income and whether the respondent personally knows a failed entrepreneur were considered. With regard to the targeted investigation of regional differences regarding the response behaviour of the participants, the German federal states with North-Rhine Westphalia as the base region, which is the federal state with the highest population, were considered as well. To test the proposed hypotheses, a multivariate regression analysis in four steps was run.

4. Results

Table 1 presents the descriptive statistics and correlations among the study variables with the exception of income and federal state (the correlations between all study variables are available upon request). The final research sample comprised 962 men (47.5%) and 1,065 women (52.5%) aged between 18 and 69 ($M_{\text{age}} = 48.68$, $SD_{\text{age}} = 11.92$). Most participants

Table 1.
Descriptive statistics
and correlations
between the study
variables (income and
federal states omitted)

Scale	Mean	SD	1	2	3	4	5	6	7
1. Age	48.68	11.92							
2. Education	3.39	1.66	-0.05*						
3. Self-employed	0.09	0.29	0.07**	0.17**					
4. Gender (0 = male/1 = female)	0.53	0.50	-0.13**	-0.10**	-0.11**				
5. Income household net	2,628.92	1,248.66	0.02	0.30**	0.11**	-0.11**			
6. Knows failed entrepreneur	0.46	0.50	0.13**	0.05*	0.12**	-0.08**	0.02		
7. Misperception of entrepreneurship	4.18	1.65	0.12**	-0.18**	-0.14**	0.11**	0.10**	-0.09**	
8. Failure reservations	4.01	1.17	0.01	-0.07**	-0.09**	0.08**	0.10**	-0.06**	0.43**

Note(s): *** $p \leq 0.001$; ** $p < 0.01$; * $p < 0.05$

(60.5%) had a minimal level of professional education, meaning that they have at least finished a training programme or graduated from a professional school. Almost half of the respondents (46.4%) claimed to know a failed entrepreneur and 188 participants (9.3%) were self-employed. Correlations are not excessively high, and variance inflation factors are all well below the usual threshold of 10 (Neter *et al.*, 1996), which suggests multicollinearity is not an issue with these data. Equally, potential common method variance seems to be negligible, as the research team took *a priori* procedural measures (Podsakoff *et al.*, 2003) to minimise common method variance during data collection (e.g. securing anonymity for respondents and shuffling scale formats and types of questions). Given that the data structure of the sample does not allow to employ more elaborate statistical procedures such as, for instance, the use of marker variables or confirmatory factor analysis (CFA), Harman's classic single-factor test (Harman, 1967) was nonetheless applied to the study's variables, which resulted in a multi-factorial solution, with the first factor only accounting for a fraction of the variance. This is in line with assessments of the field suggesting common method bias is generally an issue of lesser concern in business and management research (Fuller *et al.*, 2014).

Table 2 presents the results of the multivariate regression analysis. Model 1 in Table 2 is one of the control models and contains all control variables, except income, which is included in the second control model, Model 2. Model 3 is the *regional model* that contains all controls, including the federal states. Model 4 incorporates the independent variable *misperception of entrepreneurship* and is therefore labelled the *theoretical model*. The model summary shows the explanatory power of the independent variables. The adjusted R^2 ($= 0.193$) indicates that the independent variable explains approximately 19.3% of observed variation in the dependent variable of the theoretical model.

The results support the assumption that the perception of the nature of entrepreneurship in terms of failure reservations varies within a certain country and/or cultural context, and that regional differences must also be considered (supporting H1). For example, in the regional model, German respondents living in the city-state Bremen ($\beta = -0.05, p < 0.05$), or in the states Rhineland-Palatinate ($\beta = -0.06, p < 0.05$) or Saxony-Anhalt ($\beta = -0.04, p < 0.10$), show significantly lower failure reservations than Germans living in the city-state of Berlin ($\beta = 0.05, p < 0.05$). Prior research illustrates that the opinion on entrepreneurs can be negatively affected by the potential socialist heritage of a particular country (Adam-Müller *et al.*, 2015). Germany might be special in this regard, as its eastern parts exhibit such a socialist heritage, while its western parts do not. Inspecting the federal states in Table 2, however, reveals no clear pattern regarding differences between East and West German federal states. Moreover, substituting the federal states with a dummy variable accounting for whether a survey respondent lives in the eastern or western parts of Germany returns insignificant results (available from the authors upon request), suggesting socialist heritage does not play a role in explaining regionally different failure reservations in the sample.

Notably, knowing a failed entrepreneur reduces failure reservations significantly in the first three models but becomes insignificant once the *misperception of entrepreneurship* variable is entered into the equation. Furthermore, the multiple regression analysis results show that the misperception of entrepreneurship has a significant positive effect on the dependent variable *failure reservations*. Accordingly, the results indicate that the stronger a German individual's misperception of the nature of entrepreneurship, the stronger the actual reservations of the German individual towards failed entrepreneurs ($\beta = 0.42, p < 0.001$), thus supporting H2.

Overall, the results support the assumption that economic conditions of a country or region alone do not influence the level of entrepreneurial activity within that country or region. The societal and cultural context in which entrepreneurship takes place might also have an impact on the entrepreneurial activity and the perception of entrepreneurship (e.g. Grichnik, 2008; Cardon *et al.*, 2011; Ruda *et al.*, 2012).

	Control model 1 Standardised coefficient ^a (SE)	Control model 2 Standardised coefficient ^{a, b} (SE)	Regional model Standardised coefficient ^{a, b, c} (SE)	Theoretical model Standardised coefficient ^{a, b, c} (SE)
(CONSTANT)	3.95 (0.13)***	3.95 (0.15)***	3.98 (0.16)***	3.00 (0.15)***
<i>Controls</i>				
Age	0.03 (0.00)	0.03 (0.00)	0.02 (0.00)	-0.03 (0.00)†
Education	-0.04 (0.02)*	-0.02 (0.02)	-0.03 (0.02)	0.03 (0.02)
Self-employed	-0.07 (0.09)**	-0.06 (0.09)**	-0.06 (0.09)**	-0.01 (0.08)
Gender	0.07 (0.05)**	0.06 (0.05)**	0.06 (0.05)**	0.02 (0.05)
Knows failed entrepreneur	-0.05 (0.05)*	-0.05 (0.05)*	-0.05 (0.05)*	-0.02 (0.05)
Income < €1,000		-0.01 (0.11)	-0.01 (0.11)	-0.01 (0.10)
Income €1,000– €2,000		0.02 (0.09)	0.02 (0.09)	0.01 (0.08)
Income €2,000– €3,000		-0.01 (0.09)	-0.02 (0.08)	-0.02 (0.08)
Income €3,000– €4,000		-0.03 (0.10)	-0.03 (0.10)	-0.03 (0.09)
Income €4,000– €5,000		-0.02 (0.11)	-0.02 (0.11)	-0.02 (0.10)
Income > €5,000		-0.11 (0.13)***	-0.11 (0.13)***	-0.09 (0.12)***
Berlin			0.05 (0.13)*	0.04 (0.12)†
Baden- Wuerttemberg			0.01 (0.09)	0.00 (0.08)
Bavaria			0.02 (0.09)	0.02 (0.08)
Brandenburg			-0.00 (0.15)	0.00 (0.14)
Bremen			-0.05 (0.29)*	-0.04 (0.27)*
Hamburg			0.01 (0.18)	-0.00 (0.16)
Hesse			-0.01 (0.11)	-0.01 (0.10)
Mecklenburg			0.04 (0.19)	0.02 (0.18)
Western Pomerania				
Lower Saxony			-0.00 (0.10)	-0.01 (0.09)
Rhineland- Palatinate			-0.06 (0.13)*	-0.04 (0.12)*
Saarland			-0.00 (0.24)	0.00 (0.22)
Saxony			0.04 (0.13)†	0.03 (0.12)
Saxony-Anhalt			-0.04 (0.16)†	-0.05 (0.15)*
Schleswig–Holstein			0.01 (0.15)	-0.01 (0.14)
Thuringia			0.01 (0.16)	-0.01 (0.15)
<i>Independent variable</i>				
Misperception of entrepreneurship				0.42 (0.02)***
<i>Model summary</i>				
R	0.13	0.17	0.21	0.45
R ²	0.02	0.03	0.04	0.20
Adjusted R ²	0.02	0.02	0.03	0.19
Standard error of the estimate	1.16	1.15	1.15	1.05
N = 2,027				
Note(s). *** $p \leq 0.001$; ** $p \leq 0.01$; * $p \leq 0.05$; † $p \leq 0.1$				
^a Dependent variable: failure reservations				
^b No income declared as base				
^c North-Rhine Westphalia as base region				

Table 2.
Regression results

5. Discussion

The present study adds to the emerging literature on entrepreneurial failure. By explaining that differences exist in the way individuals and societies of different geographic regions perceive and tolerate entrepreneurial failure, which influences the acceptability of entrepreneurship as a viable career path, entrepreneurial failure is embedded in a cultural and spatial context. While focusing on the German population, the evaluator perspective on entrepreneurial failure (Shepherd and Patzelt, 2017) is advanced, and insights into how entrepreneurial failure is perceived by the overall population in an innovation-driven economy are generated. Understanding the German case can, thus, aid the understanding and derivation of political measures for many other western countries, most of which also show low levels of entrepreneurial activity (Brännback and Carsrud, 2008).

To date, scholars have argued that failure reservations play an important role in explaining national differences at the level of entrepreneurial activity owing to possible negative spillover effects that undermine the willingness of individuals to enter into entrepreneurship (Armour and Cumming, 2008; Politis and Gabrielsson, 2009), or to start a new venture following a business failure (Armour and Cumming, 2008). However, fewer start-ups imply less economic progress for a region and for a country (McKeon *et al.*, 2004; Warren, 2004). Furthermore, failure can create substantial psychological, economic and social costs for entrepreneurs (Cardon *et al.*, 2011; Ucbasaran *et al.*, 2013; Shepherd and Patzelt, 2017), which can impede learning from failure (Cope and Watts, 2000; Singh *et al.*, 2007). Consequently, an improved perception of entrepreneurship, greater tolerance of failed entrepreneurs and a reduction in entrepreneurial failure reservations could support emotional recovery and foster learning from failure (Shepherd, 2003), which could in turn help entrepreneurs to build a legitimate professional image for future career actions (Elsbach, 1994, 2003; Garud *et al.*, 2014).

Accordingly, scholars recommend that national policymakers should try to influence the societal perception of entrepreneurship and entrepreneurial failure (e.g. Dileo and García Pereiro, 2019; Simmons *et al.*, 2014) to promote the development of an entrepreneur-friendly culture (Wagner and Sternberg, 2004; Röhl, 2016). However, such approaches may not deliver their potential for change because one of the research outcomes suggests that reservations about failed entrepreneurs – at least in the German setting – can result from serious misperceptions about entrepreneurship: most Germans do not seem to perceive entrepreneurship as a process that requires entrepreneurs to assume risk and that carries the possibility of failure (Koe, 2016). Moreover, it seems that being familiar with failed entrepreneurs does not heal reservations towards them if misperceptions about the nature of entrepreneurship prevail. The results also show that the perception of entrepreneurship and entrepreneurial activity in terms of failure reservations vary within German states, with Bremen, Saxony-Anhalt and Rhineland-Palatinate showing weaker failure reservations. The current research findings suggest that policymakers should not merely invest in campaigns aimed at creating a culture of second chances – because that approach frequently does not translate into reducing failure reservations – but they should invest in enhancing general education about the realities of entrepreneurship. Doing so could strengthen underdeveloped entrepreneurial cultures and encourage citizens to engage in entrepreneurship (e.g. Meccheri and Pelloni, 2006). Table 3 translates the findings into actionable measures at the national and regional levels for policymakers and educators against the background of two predominant challenges: first, to enhance a country's entrepreneurial culture and, second, to educate the true nature of entrepreneurship.

In recent years, there has been a substantial increase in the interest on entrepreneurship on the part of public policymakers (Drakopoulou Dodd *et al.*, 2013). This interest spans all relevant spatial levels of government activities, such as the supranational level (global/continental) (European Union (EU) programmes supporting entrepreneurship), the national

Challenges	Implications for policymakers	Implications for educators
<p><i>Enhancement of a country's entrepreneurial culture</i> Improvement in the perception of entrepreneurship, greater tolerance of failed entrepreneurs and a reduction in entrepreneurial failure reservations to encourage individuals to engage in entrepreneurship</p>	<ol style="list-style-type: none"> (1) Roll out nationwide and regional entrepreneurship support policies (e.g. entrepreneurship-friendly bankruptcy laws, facilitated administrative processes) (2) Foster entrepreneurship support services (e.g. government provision of information, incubators, training and funding) (3) Promote entrepreneurship initiatives (e.g. Entrepreneurship Weeks) and competitions (e.g. founder prizes) (4) Promote media stories about (failed) entrepreneurs (e.g. TV formats like <i>Dragon's Den</i>) (5) Support entrepreneurship events (e.g. <i>FuckUp Nights</i>) 	<ol style="list-style-type: none"> (1) Transfer of entrepreneurship education to the general public, e.g. by educators talking about entrepreneurship in the media, entrepreneurship workshops (e.g. self-initiative training) open to the public, events in the sense of <i>Ted Talks</i> on entrepreneurship (2) Promote the creation of entrepreneurial universities
<p><i>Educate the true nature of entrepreneurship</i> Individuals need to understand entrepreneurship as a process that requires entrepreneurs to assume risk and that carries the possibility of failure</p>	<ol style="list-style-type: none"> (1) Include entrepreneurship education in the curriculum of schools and universities (2) Strengthen entrepreneurship education in schools and universities (e.g. <i>JUNIOR</i> programme) (3) Support selected entrepreneurship initiatives at schools (e.g. student-run companies) and universities (e.g. business simulations) 	<ol style="list-style-type: none"> (1) Introduce entrepreneurship courses and business simulation games into classes (2) Support the creation of student-run companies (3) Present realistic and diverse entrepreneurial role models in class (4) Foster/teach different forms of entrepreneurship following from entrepreneurial culture such as sustainable or social entrepreneurship

Table 3.
Actionable measures for policymakers and educators

level (nationwide entrepreneurship support policies like entrepreneurship-friendly bankruptcy laws and services or initiatives such as Entrepreneurship Weeks, as well as competitions like founder prizes), the regional level (entrepreneurship support services, like incubators) and even the local level (entrepreneurship programmes for selected cities).

Strengthening entrepreneurship education in schools and universities through the inclusion of entrepreneurship education into the curricula is also hugely important (Piegeler and Röhl, 2015). While most entrepreneurship education currently takes place with a reliance on real-world and hands-on experience, the COVID-19 crisis and its aftermath have resulted in the discussion of how online entrepreneurship education needs to be designed to achieve a similar experience (Liguori and Winkler, 2020). The development of more appropriate online formats to provide entrepreneurship education might also lead to a greater number of students being educated in entrepreneurship, which would aid a more realistic perception of entrepreneurship. Furthermore, projects such as the German *JUNIOR* programme, which aims to establish entrepreneurship in schools by teaching entrepreneurial thinking and familiarising pupils with the idea and nature of entrepreneurship at an early stage (*JUNIOR*, 2017), should be given increased support. At the university level, entrepreneurial education aims to promote a better understanding of the nature of entrepreneurship among students

from all faculties. Initiatives include action-oriented formats where students learn to apply theory in practice while experiencing how to turn venture ideas into reality with the support of passionate fellow students and mentors (Middleton *et al.*, 2020).

Entrepreneurship education is not just about teaching someone to run a business; it is also about developing an improved widespread understanding of entrepreneurship with the aim of reducing misperceptions and reservations about the topic. However, while talking about entrepreneurship and entrepreneurs, educators should pay greater attention to the effect the presentation of entrepreneurial role models might have on students. Attempting to reproduce stereotypical entrepreneurs (such as the heroic Richard Branson) in class (Neck and Greene, 2011) might be not fruitful and does not contribute to the understanding of entrepreneurship. Instead, entrepreneurial role models with whom students can identify and who represent the range of founder types promise to be more influential on students. Educators should also pay attention to teach pupils and students about different forms of entrepreneurship, such as sustainable or social entrepreneurship – depending on the entrepreneurial culture within a country or region.

To make entrepreneurship education more part of a public discourse, entrepreneurship education formats that address the general public are also necessary. These include, for example, educators talking about entrepreneurship in the media, entrepreneurship workshops (e.g. self-initiative training) open to the public or events in the sense of *Ted Talks* on entrepreneurship and latest findings in entrepreneurship research. Furthermore, educators should promote the creation of entrepreneurial universities to illustrate that applying and/or living an entrepreneurial culture does not necessarily mean to found a business.

Although entrepreneurial education can both attract people to and deter them from entrepreneurial activity, students and societies benefit from having a solid entrepreneurial education that provides citizens with entrepreneurial knowledge alongside skills useful for employment (Kuckertz, 2013). However, schools and universities can usually only introduce long-term approaches to entrepreneurial education. Short-term approaches can be seen in the promotion of media stories about (failed) entrepreneurs, TV shows like *Dragons' Den* or *Shark Tank*, or events such as *FuckUp Nights* where professional failure stories are shared and discussed.

Policy and educational initiatives might be ineffective in regions with a low level of social approval of entrepreneurship where the social norms and values are at odds with entrepreneurship. Furthermore, as the sources of an entrepreneurship culture are rooted in the economic history of a country, attempts to stimulate the establishment of a regional entrepreneurship culture will need to reach far back into a country's past (Fritsch and Wyrwich, 2017). Encouraging entrepreneurial activity in regions that lack an adequate entrepreneurial culture might be more effective when preceded by positive steps to foster a positive entrepreneurial climate (Fritsch and Wyrwich, 2017).

As a whole, the research results should be interpreted as a clear argument against general, uniform, “one-size-fits-all” policies and initiatives to advance entrepreneurial activity in countries, regions, cities and all times (cf. Díez-Martín *et al.*, 2016). National and supranational efforts to stimulate entrepreneurship may inherently be doomed to fail or at least to disappoint. As entrepreneurship is crucial for growth and employment generation, local and regional policies should be prioritised (Audretsch and Keilbach, 2007), and policymakers and educators should expressly consider the space- and time-specific context while educating people about the realities of entrepreneurship and developing entrepreneurship policies (Hundt and Sternberg, 2014).

Irrespective of its contributions, the present study is not without limitations; however, those limitations illuminate promising avenues for future research. Entrepreneurship is a multifaceted phenomenon, as is entrepreneurial failure. While generating conclusions about entrepreneurial failure reservations, no distinctions could be derived between, for instance, a

failed technology start-up that was unable to bring a product to market and a third-generation family business that went bankrupt. Both these and other modes of failure might dramatically affect the perceptions held by the general population and thus warrant further investigation. Furthermore, research suggests a strong association between national and regional cultural values and entrepreneurship beliefs (Stenholm *et al.*, 2013; Kibler and Kautonen, 2016). In this regard, it must be assumed that the results of a study based on German culture are – although trend-setting for many other western countries with low levels of entrepreneurial activity – not fully generalisable to other cultural contexts where failure and entrepreneurship might be perceived differently. Therefore, international studies comparing the perception of entrepreneurship and failure reservations in different spatial settings might paint an even clearer picture of where political measures could be effective. Third, this paper uses attitudinal items that might fail to capture some important nuances of business failure. The final model's R^2 values suggest that a substantial amount of the variance in the dependent variable could be explained. However, there is room for additional explanations that might be worth including; for instance, more concepts accounting for psychological traits of evaluators. Furthermore, recent research suggests that people perceive business failure differently depending on the cause of failure (Kibler *et al.*, 2017). Defining failure in a positive light or linking failure to external factors beyond the control of the failed entrepreneur could yield more positive legitimacy judgements and higher levels of social approval (Shepherd and Haynie, 2011). Also, the online data collection facilitated by a service provider might be a typical example of digital technologies excluding entire groups due to their lack of technical equipment or skills (Berger *et al.*, in press) from the sample. Taking this into account in future studies while adapting the items used here might produce a more detailed picture of the phenomenon.

6. Conclusion

The current study demonstrates that the perception of entrepreneurship and entrepreneurial activity can vary within a certain country and/or cultural context. Moreover, regional differences within a country and/or cultural context must also be considered while determining the perception of entrepreneurship and its impact on failure reservations. While referring to the German case, specifically entrepreneurship in Germany and Germans' perceptions of entrepreneurship, it was possible to show how misperceptions of the nature of entrepreneurship affect entrepreneurial failure reservations in Germany. The principal research findings imply that the stronger the individual misperceptions of the nature of entrepreneurship, the worse the reservations about failed entrepreneurs. Furthermore, the results demonstrate that regional differences exist in Germany that vary with the degree of failure reservations. With reference to the research outcome, the development of effective policy initiatives tailored to region-specific needs to boost entrepreneurial activity within a country and its regions are needed. Moreover, the discussion emphasises that talking positively about entrepreneurial failure will not suffice to remove failure reservations, particularly in Germany. Similarly, it is not enough merely to invest in campaigns aimed at creating a failure-friendly culture in Germany. Instead, better education about the realities of entrepreneurship is needed, and education should take regional differences in the perceptions of entrepreneurship and failure reservations into account.

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