The entrepreneurial mind-set of university students: a cross-cultural comparison between Namibia and Germany

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Abstract: The objective of this article is to set a cornerstone to compare and understand the phenomenon of graduate entrepreneurship in developing and developed countries. Our central research questions are: Are there differences in the entrepreneurial intentions of university students? What are the factors that might explain potential differences in their entrepreneurial mind-set? In response to these questions, we performed a cross-sectional study exploring the prospective career paths of 2,353 university students from Namibia as well as from Eastern and Western Germany. We found that Namibian students have a higher entrepreneurial intention compared to their German counterparts. We detected several differences between both countries and revealed explanatory factors. However, they are not sufficient to explain the 'regional dimension' of the higher entrepreneurial intentions in Namibia. Several implications are presented.

Keywords: graduate entrepreneurship; universities; students; entrepreneurial intentions; Namibia; Germany.

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1 Introduction

For both developing and developed countries, the formation of new firms is crucial for economic vitality and renewal. The empirical evidence is strong in support of a nexus between start-up rates and levels of economic development. Cross-sectional analysis reveals a U-shaped relationship between both concepts, with solo self-employed entrepreneurs at the lower and innovative ones at the upper end of the entrepreneurship spectrum (Stel et al., 2010). For developing countries in particular, it is of great practical importance to understand the role of entrepreneurship for economic growth (Naudé, 2009). Interestingly, the global entrepreneurship monitor has been reporting many years that the total entrepreneurial activity in many developing countries is higher than in industrialised nations (Kelley et al., 2011). Possible explanations are the predominance of so-called 'necessity entrepreneurs' on the one hand and higher business opportunities on the other.

Despite being a primary source of new business ideas, there is no specific information available on the entrepreneurial intentions of university students in these countries. In Europe, the phenomenon of graduate entrepreneurship has been subject of an increasing number of studies over the last years mainly in German-speaking (e.g., Golla et al., 2006; Josten et al., 2008) and English-speaking countries (e.g., Greene and Saridakis, 2008; Birdthistle, 2008). In addition, there are only few comparative studies on an international level (e.g., Fueglistaller et al., 2006; Franco et al., 2010), and even fewer that include developing countries (e.g., Veciana et al., 2005). For African countries, there is almost an absence of literature, with a handful exceptions preliminarily focussing on South Africa and Botswana (e.g., Mgaya and Magembe, 2007; Plattner et al., 2009; Fatoki, 2010).

Our paper addresses these research caveats and focuses on a comparison of university students' entrepreneurial intentions in Germany and Namibia, the latter being completely omitted from research on graduate entrepreneurship. These countries are characterised by

different economic and cultural realities, but have a particular historic relationship. Since Namibia was a protectorate of the German Empire from 1884 to 1915, the culture, language, architecture, work ethic and will of the German population living there are still relatively strong and vibrant. Moreover, for more than a decade both countries are actively engaged in promoting graduate entrepreneurship: while German policymakers struggle for bettering the entrepreneurial climate at higher education institutions by launching public support programmes (Schleinkofer and Kulicke, 2009), the Namibian Government has taken a series of initiatives to foster a culture of entrepreneurship (Isak, 2009), especially recognising the importance of entrepreneurial education (Mbaziira and Oyedokun, 2007; Johansen and Schanke, 2008).

With regard to these premises, our central research questions in the German and Namibian contexts are: Are there differences in the entrepreneurial intentions of university students? What are the factors that might explain potential differences in their entrepreneurial mind-set? To shed a light thereon, our empirical paper investigates university students from Namibia as well as from Eastern and Western Germany. In doing so, it uses a set of motivational, environmental, educational and demographic variables. With the cognisance of the underlying reasons of students' entrepreneurial intentions, we try to make a contribution to better understand and control graduate entrepreneurship in developing and developed countries. Furthermore, as graduate entrepreneurship in the developing countries is only scarcely explored, our study is the first international comparative survey on entrepreneurial intentions including Namibia.

The remainder of the paper has the following structure: Section 2 contains a literature review related to the subject and outlines our research hypotheses. Afterwards, in Section 3 we present our research design, i.e., data, sample, variables and statistical methods. Section 4 offers a descriptive and explorative data analysis and discusses the outcomes. In Section 5, the paper finishes with a conclusion, implications and limitations.

2 Theoretical background

2.1 Students' entrepreneurial intentions

To understand the occupational choice of university students, intentionality is the underlying concept that must be explored. Entrepreneurial intention has been considered a key element for the decision to start up a business (Bird, 1988). As cited in the introductory section, some empirical studies were performed during the last years, mostly for developed countries, with particular focus on Europe.

For example, Fueglistaller et al. (2006) surveyed students not only from ten European countries, but also from New Zealand, Australia, South Africa and Singapore. These scholars found on average that 12.1% of the students intend to enter the job market after graduation as an entrepreneur. However, these preferences vary considerably according to the particular country: The share was the highest in Australia (18.0%), Belgium (16.7%), Hungary (16.0%) and Ireland (15.7%), whereas the lowest levels of entrepreneurial intentions were found in Germany (7.9%), Switzerland (9.6%) and Finland (9.7%).

Franco et al. (2010) asked university students in Eastern and Western Germany as well as in Central Portugal and found intentionalities of 8.3%, 14.3% and 23.1%, respectively. Such strong regional differences can be underpinned by research of Plattner

et al. (2009) on undergraduate students in Botswana, where only 2.3 % considered entrepreneurship as a career option. The authors attributed this low intentionality to the students' lack of positive self-concept and to the belief that their careers depend on 'connections' with the 'right' people, luck or the government. Similarly, Fatoki (2010), who investigated the entrepreneurial intention of South African graduates, also detected very weak levels.

To get to the bottom of these disparities, a bulk of research has been carried out, almost exclusively in the developed countries, to explore the underlying motivations for entrepreneurial intentions. On the whole, quite a few studies have found that intentionality is influenced by many, sometimes different factors (Harris and Gibson, 2008; Jones et al. 2008). Among the factors identified by researchers as crucial for the individual's career path decision, a first category encompasses personality traits as well as intrinsic and extrinsic motivations (McClelland, 1965; Abbey, 2002).

A second group of influencing factors consists in explicit demographic characteristics such as gender, marital status, age, ethnicity, family antecedents, education and background experiences (Reynolds et al., 1994; Stewart et al., 2003; Lee et al. 2006). Institutional factors constitute a third set of variables that impact the aspiration toward entrepreneurship. They comprise the attractiveness of professional activities determined by remuneration, job security, career and training opportunities as well as social contributions (Miller and Mulvey, 1996; Kalleberg and Buren, 1996; Wagner, 1997). In this respect, some scholars (Scott and Twomey, 1988) speak of triggering factors such as the effects of looking for work, career advice received and the prospect of unemployment, mostly being situational and short-term.

With particular respect to Africa, this continent is almost absent of scientific scrutiny on entrepreneurship and the underlying motivations, with a few exceptions (e.g., Kiggundu, 2002; Benedict and Venter, 2010). Studies conducted in Botswana, Mgaya and Magembe (2007) found out that the attitudes of university students towards starting their own businesses were influenced by factors such as intrinsic inclination, independence, prestige and income. Recent work of Fatoki (2010) among South African graduates identified five motivators of entrepreneurial intention: employment, autonomy, creativity, economic and capital. However, these studies are not comprehensive enough to get a clear picture of the reality in Africa. In addition, Namibia has not yet been in the spot of respective investigative activities.

2.2 Hypotheses

Based on these reflections, we are now proceeding with deducting and formulating our research hypotheses. Due to the differences in the cultural and economic conditions as well as to the potential influence of other factors, we suppose that the analysis of the entrepreneurial mind-set of Namibian and German university students will result in a heterogenic picture comparing both countries.

H1 Entrepreneurially inclined students in Namibia are motivated by other factors than entrepreneurially inclined students in Germany

Research for industrialised countries indicates that self-realisation (Kolvereid, 1996; Carter et al., 2003) and need of autonomy and independence (Carter et al., 2003; Van Auken et al., 2006; Douglas and Shepherd, 2002) are important when explaining

why some individuals start a business. In general, it seems that economic motives are considered less important than other objectives (Baumol, 1993).

This is underpinned by a comprehensive study of more than 15,000 students at 37 German higher education institutions, exploring the weighting of the motives behind self-employment (Josten et al., 2008). These researchers found out that the most important drivers are working under one's own initiative, making better use of one's own capabilities, the freedom to determine one's own working place and times,being one's own boss and realising one's business or product ideas. Interestingly, the opportunity of higher income was ranked less essential in their study.

However, we assume that Namibian students striving for self-employment are more motivated by the chance of higher income and the continuation of family tradition. A survey of entrepreneurs in Kenya, Ghana and Nigeria states that the strongest motivator for starting their businesses in all three countries was the opportunity to increase income (Benzing and Chu, 2009). Moreover, these scholars identified a vigorous underlying family factor. In fact, the influence of the family in collectivist cultures (Hofstede, 2001) such as the majority of African countries cannot be neglected for the decision to get self-employed.

H2 In contrast to the situation in Germany, in Namibia the number of self-employed individuals in a student's environment does not favour entrepreneurial intention

Several studies from economically developed countries emphasise the importance of the social environment when explaining why individuals choose to start a business. According to the Theory of Planned Behaviour, the most relevant influence seems to be the perceived social pressure from family, friends or other significant 'people of reference' (Ajzen, 1991).

A bulk of research underpins this phenomenon: Being raised in a family with an entrepreneurial background has a significant impact on the individuals' intentions to start a businesses (Scherer et al., 1989; Scott and Twomey, 1988; Jacobsen, 2006). Having 'role models' is a significant predictor of entrepreneurial interest (Scherer et al., 1989; Van Auken et al., 2006).

Thus, following statement could be made for the developed countries: The more the environment is shaped by the existence of entrepreneurs, the higher the individuals strive for self-employment. For the opposite, developing countries with a high total entrepreneurial activity (Bosma et al., 2009), we believe that a greater number of self-employed individuals in the environment has only a limited to no effect on the students entrepreneurial intentions.

H3 The impact of entrepreneurship education on students' entrepreneurial intentions is different in Germany and Namibia

The last decades have witnessed a tremendous growth in establishing entrepreneurship courses and programmes throughout the world (Haase and Lautenschläger, 2011). This also applies to African countries (Kabongo and Okpara, 2010). Entrepreneurship education has nowadays transformed into a global phenomenon.

Nevertheless, because of each country's unique cultural context, its impact may vary considerably (Lee et al., 2005; Lee et al., 2006; Haase and Lautenschläger, 2009). For the developed countries, numerous scholars have discovered that exposure to entrepreneurship education significantly increases the participants' entrepreneurial

intentions (Peterman and Kennedy, 2003; Souitaris et al., 2007; Lee et al., 2005; Fayolle et al., 2006).

However, there are studies indicating a negative correlation between the effect of education and initial intentionality (Franco et al., 2010; Haase and Lautenschläger, 2009; Lee et al. 2005). As we assume that entrepreneurial inclination in Namibia is higher than compared to Germany, the effect of sensitising and motivating Namibian students for self-employment will be, consequently, lower.

H4 Students of engineering and natural sciences have stronger entrepreneurial intentions in Namibia than in Germany

We postulate that the subject of study may play an important role in promoting an entrepreneurial spirit. Some fields of study present more entrepreneurial opportunities than others. Especially in Namibia, a degree in engineering sciences offer students a lot of opportunities for entrepreneurship, whereas engineering graduates in Germany are oriented towards an employment in large companies. For European countries, research indicates that students are disproportionately employed in larger or established companies (Belfield, 1999; Golla et al., 2006).

H5 Demographic factors such as age and gender do not contribute in explaining differences in the students' entrepreneurial intentions between Germany and Namibia

A lot of scientific scrutiny has been carried out to explore gender differences, overwhelmingly indicating that men have a higher propensity for self-employment than women (Grilo and Irigoyen, 2006; Caliendo et al., 2009). In addition, the relation between age and rates of entry into self-employment has been analysed by several scholars, usually with a positive correlation, at least during the first years of formal qualification (Holtz-Eakin and Rosen, 2005; Caliendo et al., 2009). Despite these factors that explain entrepreneurial intention, we assume that the effects are the same for both countries.

3 Methodology

3.1 Data and sample

The data for our research is the result of a survey including students from the Polytechnic of Namibia (PoN) in Windhoek (Namibia), the University of Applied Sciences Jena (FHJ) and the University of Applied Sciences Worms (FHW). The latter stand for different regions (Eastern and Western Germany) but they are comparable to PoN with regard to orientation and subjects of study. Additionally, all three universities are dominated by their business management faculties. PoN is, furthermore, the second biggest university in Namibia, representing almost half of all Namibian students.

The survey was conducted from May to August 2010. The questionnaires were firstly pre-tested with 20 graduating students from the different localities. Thereafter, we personally contacted nearly the entire population of university students from all three universities by e-mail, providing an anonymous personalised link to a standardised online questionnaire in German (for German students) and English (for Namibian students) language. In total, 16,690 individuals were approached by e-mail.

The questionnaire encompassed various groups of questions related to the respondent's academic profile, demographic characteristics, attendance in entrepreneurship-related subjects, motives for occupational choice as well as entrepreneurial intentions. We asked the students to indicate their intentions to become self-employed both in general as well as directly after completing their studies. The research was based on a prospective basis, i.e., we asked students before any of their decisions could have been realised in the near future.

We received valid questionnaires from 2,353 university students, making up our sample. This corresponds to 12.1% of the overall population of the three higher education institutions surveyed. The survey is representative for the three universities, as students of different course backgrounds and years of study are included in the sample. With regard to Namibia, it is worth mentioning that the total number of observations in our survey at the same time corresponds to approximately 5% of the overall student population of the entire country. Table 1 shows the composition of the sample in detail.

Table 1 Composition of the sample

	Namibia PoN		*Germany*					
			Total		*FHW*		*FHJ*	
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*
Total number of observations	1,315	55.9	1,038	44.1	476	20.2	562	23.9
Age								
<=20	564	43.4	104	10.2	34	7.3	70	12.7
>20 and <24	486	37.4	519	51.0	236	50.6	238	51.4
>=24	249	19.2	394	38.8	196	42.1	198	35.9
Gender								
Male	620	47.9	487	48.1	168	36.2	319	58.2
Female	675	52.1	525	51.9	296	63.8	229	41.8
Subject of studies								
Business and economics	756	58.2	537	52.3	419	88.8	118	21.3
Social sciences	69	5.3	67	6.5	4	0.8	63	11.3
Engineering, IT, natural sciences	475	36.5	423	41.2	49	10.4	374	67.4
Current level of studies								
At the beginning	470	36.1	306	29.8	131	27.7	175	31.5
In the middle	550	42.3	384	37.6	165	34.9	219	39.5
At the end	281	21.6	223	32.8	177	37.4	161	29.0

As it turns out, students at PoN are on average younger than the German students. This might be due to the fact that a large share of Namibian students enter the university directly after completing high school. In our sample, this relative number is 63.2% for PoN compared to 32.1% for the two German universities (not displayed in Table 1). Most German students in our sample are characterised by a prior professional education, professional experiences or activities within a military or civil/community

service. Furthermore, most individuals surveyed study business administration or economics. Other fields of study are engineering and natural sciences, and to a small extent also social sciences such as pedagogy, psychology, language, culture and aesthetics.

3.2 Variables

In order to measure the entrepreneurial mind-set of university students, we examined several indicators. Firstly, we asked students whether they exclude the possibility of being self-employed, whether they intend to be self-employed and whether they have already started entrepreneurial activities. Secondly, respondents had to indicate their occupational aspiration directly after completing their studies. Thirdly, the focus was on potential factors influencing entrepreneurial intentions. Based on our hypotheses, these factors are grouped into categories such as the motives of professional choice, the number of self-employed individuals in the student's environment, the number and kind of entrepreneurship courses attended and the respondent's personal characteristics.

In detail, we used the following set of variables for our statistical analysis and test of hypotheses:

- *Dependent variable*: Entrepreneurial intentions were measured based on the occupational aspiration directly after completing studies. Respondents had to choose on a five-point Likert scale whether they will probably become employed or self-employed. For the analysis, we computed a binary variable and assigned a value of 1 when the probability of self-employment was very high or high, indicating the presence of an entrepreneurial mind-set.

- *Independent variables*: Motives of professional choice used in our analysis are the pursuit of job security, the need of autonomy and independence, the chance of a higher income, career opportunities, social recognition and status, the strive for influence and power, self-realisation as well as the wish to continue family tradition. Their importance was gathered through five-point Likert-type scales. Self-employed individuals in the environment are distinguished in family members, friends and persons from work or the academic environment. The number of such persons were captured by ordinal variables with one standing for none, two for one to two persons, three for three to five persons, four for six to ten persons and five for more than ten persons. In accordance to this approach, the number of attended lectures was captured by ordinal variables. These lectures were distinguished into field reports, case studies, soft skills training, business plan development, start-up simulations and readings in entrepreneurship. Personal characteristic are captured by age (ordinal as categories), gender (dichotomous) and the field of study (dichotomous).

- *Control variables*: We controlled for the current level of study (ordinal) as well as for ongoing entrepreneurial activities (dichotomous). This is required as it is expected that students being already involved in starting a business have a much higher probability to continue this business after completing their studies. Furthermore, as it might be the objective of university education to prepare for a professional activity it is necessary to control for the current status of study.

3.3 Statistical analyses

In order to compare the descriptive results of the Namibian and German subsets, we computed means and applied Welch's t-test to identify statistically significant differences. To test our hypotheses and to identify the role of influencing factors, we employed a logistic regression analysis (logit model). Based on this type of multivariate statistical analysis, we analysed the relative weights of each variable and their level of significance. In doing so, the students' entrepreneurial intentions were related with the underlying motives, self-employed individuals in their environment, entrepreneurship lectures attended during their studies and personal characteristics. In order to ensure that our explanatory variables are independent, we undertook a multicollinearity analysis. Apart from the analyses of the total sample, we separately computed logistic regression coefficients for the subsets of Namibian and German students. We used the Wald-test to detect the statistical significance of each coefficient in the three models. For the estimation process, we applied STATA software.

4 Results and discussion

4.1 Descriptive results

The descriptive data analysis reveals a clear picture: The entrepreneurial intention among the Namibian students is manifestly higher than among the German respondents. While 38% of the former indicated an intention for self-employment, this applies only to 7% of the latter. In the same vein, also the share of those who are already engaged in entrepreneurial activities is with 7% in Namibia almost twice as high as in Germany reaching 4%. On the other hand, the proportion of students who have not yet decided whether or not to take the step into self-employment, though not excluding this option, amounts to 62% in Germany, but only to 47% in Namibia. The respective findings are presented by Table 2. It shows the means, the standard deviations as well as the results of t-tests of statistical difference for the Namibian and German subsets.

Table 2 Entrepreneurial affinity of university students

	Namibia		*Germany*		*t-test*
	m	*sd*	*m*	*sd*	
Self-employment as possible option	0.47	0.50	0.62	0.49	$t = -7.40$***
Intentionality to be self-employed once	0.38	0.49	0.07	0.25	$t = 20.1$***
Already conducting entrepreneurial activities	0.07	0.26	0.04	0.20	$t = 3.6$***
Intention to be self-employed after studies	0.44	0.50	0.15	0.37	$t = 14.6$***

Note: ***$p < 0.01$

Table 2 also reveals the intentions for self-employment. In Namibia, 44% of students consider the option of getting self-employed directly after completing their studies, whereas in Germany, this is held by only 15% of our sample. In summary, the results confirm our assumption that the Namibian higher educational system is characterised by higher entrepreneurial aspirations of students, which is in contrast to the situation in Germany.

Table 3 illustrates the descriptive results for potential factors of influence on entrepreneurial intentions. The outcomes of the t-test indicate that motivational factors, the number of self-employed individuals in a student's environment and lectures related to entrepreneurship attended are more distinctive in Namibia. Almost all means for the Namibian subset are significantly higher compared to the German subset. There is only one exception: courses for training soft skills have been attended with the same intensity in both subsets.

Table 3 Cross-country comparison of potential factors of influence on entrepreneurial intentions

	Namibia		*Germany*		*t-test*
	m	*sd*	*m*	*sd*	
Motives of professional choice					
Job security	4.59	0.96	4.06	0.97	12.69***
Need of autonomy and independence	4.49	0.95	3.83	0.87	17.06***
Earnings – the chance of higher income	4.25	1.20	3.90	0.86	7.88***
Career opportunities	4.69	0.75	4.30	0.78	11.92***
Social recognition and status	3.74	1.43	3.54	1.02	3.97***
Pursuit of influence and power	3.51	1.50	2.82	1.08	12.40***
Self-realisation – realising my own ideas	4.65	0.78	4.04	0.83	17.50***
Continuation of family tradition	3.32	1.54	1.94	1.13	24.02***
Self-employed persons in environment					
Family members	2.53	1.24	1.67	0.73	20.46***
Friends	2.52	1.35	1.94	0.96	11.38***
Persons from work environment	2.82	1.48	1.85	1.03	18.32***
Attended lectures during studies					
Field reports	1.78	1.00	1.45	0.74	8.96***
Case studies	1.71	0.97	1.29	0.60	12.47***
Soft skills training	1.71	1.01	1.76	0.87	–1.31
Business plan development	1.90	1.06	1.45	0.77	11.63***
Start-up simulations	1.78	0.99	1.34	0.63	12.55***
Readings in entrepreneurship	2.10	1.22	1.53	0.81	13.26***

Note: ***$p < 0.01$

Concerning self-employed individuals in the student's environment, the average absolute number in Namibia is 1 to 2 in each category (family, friends and persons from work or academic environment), whereas in Germany, it is less than 1. With regard to entrepreneurship education, approximately 44.7% of PoN students have participated in more than one entrepreneurship-related course. For the German respondents, this applies only to 28.2% of the respective sample.

Table 4 Results of the logit-model

Variables	*Namibia*		*Germany*		*Total sample*	
	coef	*z*	*coef*	*z*	*coef*	*z*
Motives of professional choice						
Job security	–.2140	–2.22**	–.2536	–2.33**	–.2484	–3.59***
Need of autonomy and independence	.0062	0.06	.6563	4.37***	.2113	2.63***
Earnings – the chance of higher income	.1123	1.41	–.0438	–0.30	.0796	1.17
Career opportunities	–.2179	–1.72*	–.206	–1.20	–.1754	–1.82*
Social recognition and status	.0352	0.50	.1455	1.13	.054	0.91
Pursuit of influence and power	–.022	–0.34	.2572	2.06*	.0279	0.49
Self-realisation – realising my own ideas	.3585	2.74***	.153	0.98	.323	3.33***
Continuation of family tradition	.0293	0.50	.3117	3.44***	.1077	2.22**
Self-employed persons in environment						
Family members	–.0713	–0.91	.2371	1.73*	–.0035	–0.05
Friends	.0866	1.13	.090	0.73	.0820	1.29
Persons from work environment	–.0900	–1.41	.0058	0.05	–.0610	–1.12
Attended lectures during studies						
Field reports	.2068	1.67*	–.012	–0.08	.1367	1.43
Case studies	.0250	0.20	.0856	0.43	.0440	0.42
Soft skills training	–.1136	–0.91	–.1403	–1.00	–.127	–1.41
Business plan development	–.0271	–0.21	.0484	0.26	.0224	0.22
Start-up simulations	.3032	2.16**	.057	0.28	.1942	1.71*
Readings in entrepreneurship	–.1474	–1.39	.1737	1.09	–.0259	–0.30
Personal characteristics						
Age	.2347	1.87*	.1523	0.81	.2156	2.11*
Gender	.2315	1.33	-.0140	-0.06	.1632	1.20
Field of study						
Business or economics	.1507	0.38	.1196	0.25	.1474	0.50
Engineering	.2959	0.73	.2148	0.44	.2088	0.69
Control variables						
Current entrepreneurial activities	1.738	3.62***	1.186	2.85***	1.552	5.29***
Current level of studies	–.1181	–0.92	–.3558	–2.34**	–.2556	–2.70***
Country (Namibia = 1, Germany = 2)					–1.219	–6.78***
	Pseudo R^2 = 0.0756		Pseudo R^2 = 0.1502		Pseudo R^2 = 0.1611	

Notes: *$p < 0.10$; **$p < 0.05$; ***$p < 0.01$

4.2 Explorative results

For starters, we checked for potential multicollinearity problems among the explanatory variables. The average variance inflation factor (VIF) is 1.83, whereas the highest VIF are 5.06 and 4.96 for the fields of studies. These values indicate a high statistical reliability of our logistic regression analyses (O'Brien, 2007). The respective results for the subsets of Namibia and Germany are shown by Table 4. Here, we present the coefficients of the respective model as well as the z-values as outcomes of the Wald-test for significance.

In both countries, the aspiration for job security is a motive that hampers the engagement in entrepreneurship. In addition, the results of both countries show a positive correlation between students with ongoing entrepreneurial activities and their intentions to run a business after completing studies.

Nevertheless, the analysis also reveals a number of interesting differences. In Namibia, entrepreneurial intention is positively influenced by the wish for self-realisation, the participation in field reports and start-up simulations as well as by a higher age. For the opposite, the quest for career opportunities underpins the aspiration for a dependent employment. In Germany, there are other factors that positively impact entrepreneurial intentions, such as the need of autonomy and independence as well as the pursuit of influence and power. In addition, continuation of family tradition and the number of self-employed family members promote entrepreneurial intentions. Surprisingly, for the German universities surveyed, the participation in entrepreneurship-related lectures has no relation at all with the students' entrepreneurial intentions.

With regard to the testing our hypotheses, H1 must be rejected. In fact, entrepreneurially inclined students in Germany are motivated by completely other factors than entrepreneurially inclined students in Namibia. Unexpectedly, Namibian students are mainly driven by self-realisation, while Germans strive for autonomy and independence. This is in line with the general wisdom regarding developed countries, but contrary to studies on African countries highlighting the chance of higher income (Benzing and Chu, 2009) and the continuation of a family tradition, prevalent in collectivist cultures. Moreover, in contrast to Namibia, self-employment through overtaking a family business seems to be a typical German phenomenon. Thus, entrepreneurially inclined students in Germany are often an artefact of their family business.

H2 cannot be rejected. In particular, the influence of having self-employed family members is influential in Germany, but not in Namibia. This insight underscores the Theory of Planned Behaviour (Ajzen, 1991) and empirical studies hitherto on 'role models' as indicators of entrepreneurial intention for Germany. In contrast to this and as predicted, the more entrepreneurial environment in Namibia does not influence the students' strive for self-employment. Actually, it seems that in countries with a high total entrepreneurial activity and therewith the presence of many self-employed people in the individual's environment, there is almost no further impact on unfolding a greater entrepreneurial intention.

H3 is confirmed as there are differences between Namibia and Germany regarding the impact of entrepreneurship education, however, not in the way as it was expected. In general, this substantiates the insight that the influence of entrepreneurship education varies according to each country's cultural setting (Lee et al., 2005, 2006; Haase and Lautenschläger, 2009). In particular, for Germany we could not demonstrate any relation

between the participation in entrepreneurship education and the existence of entrepreneurial intention. Therewith, it undermines the common belief concerning the sense of entrepreneurship education. In fact, there are recent studies challenging the effectiveness of entrepreneurship education (Franco et al., 2010; Oosterbeek et al., 2010). A possible explanation could be the 'Teachability Dilemma' of entrepreneurship (Haase and Lautenschläger, 2011). Another possible reason could be that entrepreneurship education in Germany keeps students away from starting a business, drawing a cheerless picture of self-employed individuals.

Neither Namibia nor Germany showed an effect regarding the subject of study. Therefore, H4 must be rejected. Unexpectedly, students of engineering and natural sciences in Namibia do not show a higher inclination towards entrepreneurship. At present, the situation in Germany is attractive for students wishing to obtain a position in a large company. Thus, in Germany there are almost no incentives for engineering students to ponder the option of stepping into self-employment.

Finally, H5 has also to be rejected as we found that age correlates with entrepreneurial intentions in Namibia, but not in Germany. This might be due to the fact that the mean age in our sample is considerably lower for Namibia than for Germany. But as the sample is representative for all universities surveyed, this outcome is not caused by inaccuracies in the data collection. Indeed, PoN recruits a large share of its students directly from high school, whereas in Germany many students first complete a vocational training or work in a job before attending a university of applied sciences. Nevertheless, it seems that older students in Namibia already have developed a certain entrepreneurial mindset and are therefore more disposed for undertaking entrepreneurial activities.

Results for the total sample are also shown in Table 4. The statistical results show that country-specific factors highly influence and lead to different entrepreneurial intentions. Hence, the explanatory factors used in our model are not sufficient to explain why Namibian students are characterised by more intensive entrepreneurial intentions.

5 Conclusions and implications

Our article aimes at setting a cornerstone to compare and understand the phenomenon of graduate entrepreneurship in developing and developed countries. Its main focus is to identify certain factors that might influence entrepreneurial intentions. Therefore, we conducted an empirical study at one Namibian university and two German universities. Five hypotheses were formulated and tested. The results indicate that Namibian students have stronger entrepreneurial intentions than their German counterparts. Furthermore, the higher education sector in Namibia is characterised by a more distinctive entrepreneurial climate. Namibian students have more self-employed friends and relatives. At the same time, they have attended more entrepreneurship-related lectures compared to German students.

To discover the underlying factors for these differences, a model has been constructed that includes motivational, environmental, educational and demographic variables. As an outcome, we found different effects of these factors among the countries studied. However, these divergences cannot elucidate the much higher entrepreneurial intentions amongst Namibian university students. We conclude that other factors might be relevant herefore, possibly due to the 'regional dimension' (Franco et al., 2010), resting in specific socio-economic realities, formed by different underlying beliefs, values and attitudes

regarding entrepreneurship. We explicitly encourage further research in the field to uncover these aspects. In particular, we again point at the sparse availability of research on academic entrepreneurship in developing countries. More research will allow policy makers in these countries to design effective strategies and methods to convert universities into institutions with strong impact on the regional development.

Nevertheless, our results are helpful for both academics and policy makers to learn more about the intended professional choices of students and to understand the factors that lead to graduate entrepreneurship. We learned that the German students in our sample are motivated by the autonomy and independence that self-employment offers. In addition, self-employment by means of continuing an existing family business is highly relevant in the German context. In Namibia, future entrepreneurs are driven by the wish to realise their own ideas. This insight challenges the traditional view that in developing countries the high numbers of pull-motivated business start-ups contribute to the relative high level of overall entrepreneurial activities. At least for the academic sector, this relationship has to be reconsidered.

With regard to entrepreneurship education, we revealed a heterogenic picture. Whereas in Namibia there was a certain link between the students' entrepreneurial intention and their participation in entrepreneurship-related courses, there was no relationship at all in the German sub-sample. Despite having a solid and vast educational infrastructure regarding entrepreneurship in Germany, the effectiveness of these measures must be questioned, at least with regard to addressing the relevant target groups. We therefore highly advise to rethink the state-of-the-art entrepreneurship education in developed countries, especially in the European context.

Finally, our study has certain limitations that offer possibilities for future research. Firstly, students from only three universities were surveyed. For this reason, the study is not representative for the general situation in the two countries and findings should be generalised with caution. Secondly, we considered only a limited set of potential influencing factors. The inclusion of social or institutional factors could enrich the knowledge base. Nonetheless, our study is the first international comparative survey on graduate entrepreneurship comprising Namibia, and the conjunction of our and further work surely will allow valuable comparisons and insights.

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