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Cross-Country Differences in Entrepreneurial Internationalization Tendencies: Evidence from Germany and Pakistan

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Received: 14 June 2019; Accepted: 25 July 2019; Published: 30 July 2019



Abstract: Previous research has emphasized the importance of entrepreneurial characteristics for international entrepreneurship, hence the application of concepts such as entrepreneurial orientation and global mindset to the study of entrepreneurial internationalization tendencies (EIT). However, literature does not adequately address how EIT differ between countries or manifest in fragile country settings. We address this gap through a quantitative study to investigate EIT in two national settings that largely differ in terms of development, institutional stability, and culture. Through the lens of the institutional theory and the mindset theory, we therefore piloted the study on 112 high-growth startups in Germany and Pakistan. Our findings show, that while entrepreneurs in Germany and Pakistan show comparable levels of innovativeness and proactiveness, they significantly differ in other EIT measures. German entrepreneurs appear to have higher levels of risk-taking, which when explained through the institutional theory lens can be attributed to the higher institutional stability and support as well as social security in Germany. This potentially makes engagement in risky activities, such as business internationalization, more appealing than in Pakistan. However, despite having lower international cognition and international knowledge compared to Germany, Pakistani entrepreneurs appear to exhibit higher degrees of international behavior.

Keywords: international entrepreneurship; emerging markets; cross-country; entrepreneurial orientation; global mindset; institutional theory; mindset theory; entrepreneurial cognition

1. Introduction

International entrepreneurship (IE), defined as “the discovery, enactment, evaluation, and exploitation of opportunities—across national borders—to create future goods and services” (Oviatt and McDougall 2005, p. 7), has been found to be important for entrepreneurial success, growth, and national economic development particularly in an increasingly globalized and digitalized world (Cavusgil and Knight 2015; Joensuu-Salo et al. 2018), with potentially higher outcomes the earlier an entrepreneurial firm engages in and commits to international activity.

Many studies have shown that personal characteristics of the entrepreneur are crucial drivers of firm internationalization (Acedo and Florin 2006; Acedo and Jones 2007; Freeman and Cavusgil 2007; Jones et al. 2011), particularly as the founder or founding team is the key maker of strategic decisions (Baron 2007; Miller 1983) such as internationalization (Knight and Liesch 2016; Manolova et al. 2002). Thus, IE studies have uncovered several attitudinal elements that play an important role in shaping IE behavior (Freeman and Cavusgil 2007; Jie and Harms 2017; Nummela et al. 2004; Sommer 2010). For example, a considerable number of studies have been published on the relationship between entrepreneurial orientation (EO), namely the combination of key behaviors (innovativeness,

proactiveness, and risk-taking) that drive entrepreneurial activity, and IE indicating that high levels of EO lead to international activity (Jantunen et al. 2005; Joardar and Wu 2011; Ripollés-Meliá et al. 2007). Additionally, in recent years, several authors have focused on the concept of a global mindset (GM), seen as a cognitive capability represented by the curiosity for and understanding of actions that support the identification entrepreneurial opportunities in a global setting, to explain international entrepreneurial behavior (Felício et al. 2013; Kyvik et al. 2013). This paper investigates the combination of these two concepts as an indicator for EIT in different contexts. Thus, this paper understands EIT as the combination of EO with a GM that favors IE behavior.

Previous research attempted to address how EO and GM concepts differ across different cultures (Covin and Miller 2014; Felício et al. 2016). However, little is known to date about how these concepts differ within the contradictory entrepreneurial environments of fragile¹ and stable markets (Kiss et al. 2012). Specifically, institutions have been found as a crucial driver of (Oparaocha 2015) or burden on IE activity (Clercq et al. 2010), but have mainly been investigated in a single, mainly developed country setting (Bruton et al. 2010).

We expect that entrepreneurs based in contrary entrepreneurial environments also differ in their EIT. Thus, our research questions are:

1. Are EIT affected by the national context?
2. In which EIT dimensions do entrepreneurs based in contradictory contexts differ?

As institutional conditions are found to be the main argument why emerging and developed markets differ (Tiwari and Korneliusen 2018), we address these questions by focusing on an advanced, stable market, namely Germany, and an emerging, fragile market, namely Pakistan—two locations differing significantly in terms of economic development, stability, and institutional environment (BMZ n.d.; Fragile States Index 2018; Global Data/Fragile States Index 2019). Furthermore, entrepreneurial behavior is influenced by the predominant institutional environment (Tiwari and Korneliusen 2018). To shed light on the cross-country differences in EIT, a quantitative study of 59 entrepreneurs from Germany and 53 from Pakistan is employed.

The study is based on quantitative research involving an online questionnaire based on EO and GM as two key EIT measures. EO refers to the behavioral elements of global orientation and captures the founder's propensity for risk-taking, innovativeness, and proactiveness, while GM evaluates how an entrepreneur views the world and the internationalization of markets and companies.

Our findings contribute to the IE literature stream of comparative entrepreneurial internationalization (CEI) (Jones et al. 2011), which “enables comparison and replication and reduces the risk of nation-specific results that are not generalizable to other countries” (Terjesen et al. 2016, p. 300). However, the CEI stream is still at early stages with only few studies investigating IE behavior in a cross-national setting (Jones et al. 2011). Furthermore, Terjesen et al. (2016) criticize that CIE is mostly conducted by aggregated data on the country-macro level rather than on the individual level, which does not allow explanations of individual entrepreneurial behavior. Additionally, we realize that most IE literature generally covers advanced and stable markets with little attention paid to emerging and fragile settings (Kiss et al. 2012). Herewith, we contribute to recent calls for more comparative studies on the individual level to investigate national differences in international entrepreneurial behavior (Terjesen et al. 2016) with particular attention to emerging contexts (Kiss et al. 2012).

Our findings also have important implications for practice. In Germany, policy makers are encouraged to incentivize entrepreneurs to engage in international activity, particularly as they appear to cognitively have much of what it takes to do so. On the other hand, Pakistani decision-makers are encouraged to invest in developing the international cognition and international knowledge of

¹ Fragility is the “combination of exposure to risk and insufficient coping capacity of the state, system and/or communities to manage, absorb or mitigate those risks. Fragility can lead to negative outcomes including violence, the breakdown of institutions, displacement, humanitarian crises or other emergencies” (OECD 2016, p. 21).

local entrepreneurs to ultimately support their international behavior, while amending institutional structures to provide entrepreneurs with the safety needed to engage in risk-bearing business activities.

2. Literature Overview

2.1. EO

Since Miller (1983) proposed that innovativeness, proactiveness, and risk-taking are driving forces of entrepreneurial activity (Wang 2008), the concept of EO has been widely used to explain entrepreneurship drivers (Covin and Miller 2014). Although Lumpkin and Dess (1996) have additionally proposed autonomy and competitive aggressiveness as factors of EO, the three-factor-conceptualization of (Covin and Miller 2014; Covin and Slevin 1989) is by far the most widely-used scale in literature (Anderson et al. 2015; Covin and Wales 2012; Rauch et al. 2009). The three elements of EO were originally developed to explain entrepreneurial behavior on a firm level (Covin and Miller 2014; Covin and Wales 2012), shaped by the managements' attitude towards risk, innovativeness, and proactiveness (Anderson et al. 2015; Joardar and Wu 2011). *Risk-taking* propensity refers to the willingness to take actions with uncertain outcomes such as entering new markets (Lumpkin and Dess 2001). *Innovativeness* reflects the support of creative thinking, which leads to new processes in the development of products and services (Lumpkin and Dess 1996) and has been shown to enhance both the speed and mode of entry to international markets (Ripolles Meliá et al. 2010). *Proactiveness* determines the search for market opportunities and the willingness to respond and take advantage of them (Lumpkin and Dess 2001). High levels of EO dimensions are associated with firm performance and new market entry (Boso et al. 2013; Lumpkin and Dess 1996; Wang 2008; Wiklund and Shepherd 2005), which is why the relevance of these dimensions for the IE field has been appreciated since its earliest years (Covin and Miller 2014).

Notably, the EO dimensions are implicit in the well-cited definition of IE by McDougall and Oviatt (2000) who state that “*International entrepreneurship is a combination of innovative, proactive, and risk-seeking behavior that crosses national borders and is intended to create value in organizations*” (McDougall and Oviatt 2000, p. 903). Previous studies have used the EO dimensions to investigate the performance of entrepreneurial firms in the international context (Jantunen et al. 2005; Javalgi and Todd 2011; Kuivalainen et al. 2007; Swoboda and Olejnik 2016). For example Javalgi and Todd (2011) and Ripollés-Meliá et al. (2007) applied the unaltered EO dimensions to examine IE activity. Covin and Miller (2014) concluded from their literature review that EO research is mainly conducted by employing the items of the (Covin and Miller 2014; Covin and Slevin 1989) EO scale in an international setting. On contrary, other previous studies explicitly call EO on the international level “*international entrepreneurial orientation*” (IEO) and adapt existing EO scales to the international level (Kuivalainen et al. 2007; Swoboda and Olejnik 2016).

Taking into account that the founding entrepreneur or founding team is a key reason why an entrepreneurial firm acts internationally (Joardar and Wu 2011; Knight and Liesch 2016), much IEO research is drawn up on the individual level of the entrepreneur (Covin and Miller 2014). Joardar and Wu (2011) argue that the firm is merely the entity encompassing the EO shaped by the reflection of the founding entrepreneurs' attitudinal composition. As such, EO is treated as an individual-level construct in this study.

2.2. GM

Numerous scholars have harnessed the importance of a GM as a determinant of IE (Felício et al. 2015; Felício et al. 2016; Felício et al. 2012; Kyvik et al. 2013; Kyvik 2018; Nummela et al. 2004). Several attempts have been made to distinguish a corporate GM and an individual GM (Felício et al. 2015; Felício et al. 2016) which could be seen as contradictory to literature stating GM as a state of mind related to an individual (Felício et al. 2013; Jie and Harms 2017; Kyvik 2011; Kyvik et al. 2013). Kyvik (2011) for example describes a GM as “*one key superior managerial orientation in the internationalisation process*

and as conceptually closely related to international entrepreneurship" (Kyvik 2011, p. 315). An individual GM is furthermore described as a behavioral or cognitive structure characterized by openness to and understanding of different cultures (Kyvik 2018) and enabling the entrepreneur to be aware of and identify international opportunities (Felício et al. 2016).

Various definitions of a GM exist. As our working definition we choose the definition offered by Levy et al. (2007) who define GM as "a highly complex cognitive structure characterized by an openness to and articulation of multiple cultural and strategic realities on both global and local levels, and the cognitive ability to mediate and integrate across this multiplicity" (Levy et al. 2007, p. 244). It has been suggested that the individual GM can be furthermore described as a resource or capability that influences entrepreneurial behavior and decisions related to international activity (Kyvik 2018). An individual GM can be characterized by three factors, namely international cognition, knowledge, and behavior (Felício et al. 2016). *International cognition* refers to an information processing capability that allows one to pay attention to diverse cultural settings and to interpret them for strategic decisions (Levy et al. 2007). *International knowledge* is derived from international experience like work or travel abroad, which shapes an awareness of challenges and opportunities of foreign market activities (Stucki 2016). Lastly, an *international behavior* refers to the strong interest in participating in international activity and the willingness to respond to international opportunities (Felício et al. 2012).

3. Theoretical Background and Hypothesis Development

3.1. Institutional Environment and EO

The relevance of environmental conditions for understanding entrepreneurial processes has been frequently studied from the lens of the institutional theory, which is primarily "concerned with regulatory, social, and cultural influences that promote survival and legitimacy of an organization" (Bruton et al. 2010, p. 422). The institutional context of the home and host country influences entrepreneurial decisions like the participation in IE activity (Lim et al. 2010). Thus, institutional theory has played a key role in explaining institutional factors behind entrepreneurial success particularly with respect to international topics (Bruton et al. 2010; Jones et al. 2011; Lim et al. 2010). Indeed, the relationship between institutional conditions and entrepreneurial internationalization has been studied extensively (Child et al. 2017; Ervits and Zmuda 2018; Oparaocha 2015; Torkkeli et al. 2019). Favorable institutional conditions are related to international performance of entrepreneurial firms (Torkkeli et al. 2019) and account to global innovation (Ervits and Zmuda 2018). Institutions such as government agencies, business incubators, research institutes or agencies for international development help to overcome resource barriers and support IE activity (Oparaocha 2015).

Covin and Miller (2014) argue that cross-national differences in EO can be best investigated by the use of institutional theory. It can be suggested that the extent to which institutions offer support to entrepreneurial firms is a major reason for differences in EO between developed and emerging markets (Abdesselam et al. 2018; Tiwari and Korneliussen 2018). Entrepreneurial firms located in emerging or fragile markets often suffer from institutional burdens due to underdeveloped or non-existent external support (Clercq et al. 2010). A lack of and fragility of institutions constrains innovativeness in emerging companies (Ervits and Zmuda 2018; Pinho 2017). Child et al. (2017) also found that the international business models of emerging countries are less focused on innovation compared to their developed market peers and that the level of development of the national economy affects the international business model of entrepreneurial firms. Furthermore, Schneider et al. (2017) found that the willingness to take financial risks differs across countries due to the level of institutional support. Covin and Miller (2014) concluded from their review that EO can be influenced by national economic development. They characterize entrepreneurs from emerging countries as proactive but less willing to take risks compared to their peers from developed markets who are described by a greater proclivity for innovative activity and the acceptance of related risks.

3.2. How a Growth Mindset Translates into A GM

A GM is characterized by behavioral and cognitive factors that relate to global openness and foreign opportunity identification (Kyvik 2018) and can be explained by the mindset theory (Felício et al. 2015). Thus, a global orientation towards IE activity is determined by “mind-set”—that is, a phase-typical cognitive orientation that promotes task completion” (Gollwitzer 1990, 63). According to the theory, an “actional mind-set” is characterized by a strong will to reach a certain goal—like in our context IE—regardless of the existing capabilities to achieve the goal (Gollwitzer 1990). This cognitive programming may also be described by the term “growth mindset” proposed by Dweck (2016).

Business leaders or founders with an actional or a growth mindset hence believe that basic attributes can be cultivated through own efforts and strategies (Dweck 2007). They therefore trust in human potential, the ability to develop and using the company as “an engine of growth—for themselves, the employees, and the company as a whole” (Dweck 2007, p. 125), which ultimately correlates with business growth and success. We adopt the view that the GM is a facet of a growth mindset.

Differences in the institutional and cultural environment are assumed to impact the GM of entrepreneurs in alignment with many scholars who have confirmed the relationship between mindset and contextual factors. Claro et al. (2016) for example found that the growth mindset of students is negatively influenced by economic disadvantage. Wicks (2001) found that institutional and economic pressures influence mindset regarding the perception of risks. Additionally, previous studies focusing on IE activity provide evidence that the GMs differ between countries (Felício et al. 2013, 2016). Felício et al. (2016) for example found differences of GM within Norwegian, Lithuanian, and Portuguese managers. They found that Norwegian managers are mainly driven by planned and strategic behaviors compared to their fellows, who are more driven by social relationships and international contacts.

3.3. Factors of Variation in EIT

It could be assumed that entrepreneurial environments differ between countries. Previous research has shown that differences on the national level exist due to economic (Child et al. 2017), cultural (Kreiser et al. 2010; Mitchell et al. 2002; Tajeddini and Mueller 2009), political (Muhammad et al. 2016), regulatory (Kreiser et al. 2010; Lim et al. 2016), and social factors (Stephan and Uhlaner 2010). Consequently, EIT, as impacted by the national entrepreneurial context, are assumed to differ between countries. We chose to therefore conduct the study between two countries, namely Pakistan and Germany, that significantly differ both in culture and the institutional environment to investigate EIT differences.

Pakistan is situated in South Asia and is characterized by having lower levels of economic development (GDP = 1.580 US-\$ in 2017), while Germany, as a member of the European Union and the Eurozone, is characterized by high levels of economic development (GDP = 43.490 US-\$ in 2017) (BMZ n.d.). Moreover, Pakistan is regarded a highly-fragile state on measures of the political, economic, cohesion, and social environment, which indicates low institutional stability in areas such as security, state legitimacy, public services, and human rights (Fragile States Index 2018; Muhammad et al. 2016; Williams and Shahid 2016), as opposed to Germany, which is characterized by low institutional fragility and ranks as the world’s 11th most stable country (Fragile States Index 2018). As for measuring culture specifically, several cross-country entrepreneurship studies have employed Hofstede’s cross-cultural dimensions (Hayton et al. 2002). In our case, Hofstede’s dimensions present Germany as having less power distance, being more individualistic, more masculine, less uncertainty avoidant and more long-term oriented than Pakistan (Hofstede Insights 2019).

Combining the above-mentioned arguments, we suggest that the national environment influences the internationalization tendencies of entrepreneurial decision-makers. Thus:

Hypothesis 1. *EIT are affected by country.*

Additionally, it could be hypothesized that the two countries differ in their dimensions of EO due to the vast differences between their institutional environments. We therefore propose:

Hypothesis 2. *Entrepreneurs in Germany differ from entrepreneurs in Pakistan regarding their level of risk-taking.*

Hypothesis 3. *Entrepreneurs in Germany differ from entrepreneurs in Pakistan regarding their level of innovativeness.*

Hypothesis 4. *Entrepreneurs in Germany differ from entrepreneurs in Pakistan regarding their level of proactiveness.*

Finally, and as rooted in the mindset theory, cultural differences between the two countries could lead to differences in the GM measures. Therefore:

Hypothesis 5. *Entrepreneurs in Germany differ from entrepreneurs in Pakistan regarding their level of international cognition.*

Hypothesis 6. *Entrepreneurs in Germany differ from entrepreneurs in Pakistan regarding their level of international knowledge.*

Hypothesis 7. *Entrepreneurs in Germany differ from entrepreneurs in Pakistan regarding their level of international behavior.*

4. Methods

4.1. Data

The study is based on quantitative research involving an online survey, which was shared with founders in Germany and Pakistan through incubators and entrepreneurial networks from September to December 2018. Therefore, relationships have been established with the Centre for Entrepreneurship at the Technical University of Berlin, the AMAN Center for Entrepreneurial Development at the Institute of Business Administration in Karachi and the Arfa Software Technology Park in Lahore through the Pakistan MIT Enterprise Forum. The questionnaire was sent to a total of 76 entrepreneurs in Karachi, 40 entrepreneurs in Lahore, and 177 entrepreneurs in Berlin.

The data consists of self-responses of the founding entrepreneurs involved in *Total Early-Stage Entrepreneurial Activity* (TEA), which according to the definition of the Global Entrepreneurship Monitor (GEM) consists of nascent entrepreneurs who are actively setting up a business and those who own a newly established business that is less than 3.5 years old (GEM n.d.). Following the argumentation of Felício et al. (Felício et al. 2016, p. 4931) that “older companies probably have a more stable organizational culture, while younger companies probably have a higher dependence on the individual’s culture”, we assume that in the early stages of conception and firm birth the cognitive characteristics are an especially important resource leading to IE (Cavusgil and Knight 2015). Therefore, we focus on TEA entrepreneurs only. After excluding 19 entrepreneurs, which were already in the persistence stage, we base our analysis on a global sample of 112 responses consisting of 59 entrepreneurs from Germany and 53 from Pakistan.

4.2. Measures

Since we measure EO at the individual rather than the company level, we adopted scales proposed by Goktan and Gupta (2015) rather than the frequently-used EO scale from (Covin and Miller 2014; Covin and Slevin 1989). *Risk-taking* covers the participants’ attitude towards risk-taking behaviors and was measured by four items ($\alpha = 0.72$). *Innovativeness* assesses the individual’s tendency for

innovativeness and was measured by four items ($\alpha = 0.86$). *Proactiveness* comprises the individual's willingness to act and was measured with four items ($\alpha = 0.70$). For individual GM, we applied the measurements proposed by Felício et al. (2016). *International cognition* covers the individual's cognitive capability to identify international opportunities and was measured by four items ($\alpha = 0.69$). *International knowledge* refers to an individual's international experience and was measured using three items ($\alpha = 0.40$). Although the Cronbach's Alpha of the knowledge measure is relatively low, we follow the recommendation of Schmitt (1996) who argues that a measure with a low reliability should be used if it covers essential content of the study². *International behavior* covers the individual's propensity to act internationally and was measured by five items ($\alpha = 0.76$), which were adapted from the firm level to the individual level. Respondents indicated their level of agreement on a seven-point Likert scale ranging from *totally disagree* (=1) to *totally agree* (=7).

As demographics and human capital have the potential to affect international entrepreneurial decisions (Stucki 2016), we additionally collected information on gender, age, education, language skills, and international study background of the entrepreneur for better interpretation of our results.

All measures are shown in Table A1 (Appendix A).

4.3. Analysis

Descriptive statistics and Fisher's exact tests³ were conducted to get an overview of the sample and to determine whether entrepreneurs from both countries differed on any demographic variables. Multivariate analysis of variance (MANOVA) was applied to determine whether EIT measures differ amongst German and Pakistani entrepreneurs. MANOVA results are followed by analysis of variance (ANOVA), a univariate test statistic to obtain evidence on the nature of the effect (Field 2013). As MANOVA allows one to determine if entrepreneurs from both countries differ due to their EIT, separate ANOVAs on the dimensions on EIT help to detect the nature of the outcome (Field 2013). The results were followed up by the non-parametric Mann-Whitney-U test to enhance confidence in the statistical results of (M)ANOVA as the assumption of interval level is slightly violated by using a Likert scale (Finch 2016). All other assumptions of conducting a (M)ANOVA are met.

4.4. Results

Means, standard deviations, and correlations are provided in Table 1. Pearson correlations show that all dimensions correlate below the point of 0.5; thus, there should not be a problem with multicollinearity (Field 2009).

Descriptive statistics and Fisher's exact test show that entrepreneurs from Germany are significantly older ($Mean = 31.31, SD = 5.18, p < 0.001$) than their counterparts from Pakistan ($Mean = 28.06, SD = 6.04, p < 0.001$) and possess significantly higher levels of education ($Mean = 3, SD = 0.62, p < 0.001$ vs. $Mean = 2.25, SD = 0.62, p < 0.001$), international study background ($Mean = 0.68, SD = 0.47, p < 0.001$ vs. $Mean = 0.21, SD = 0.41, p < 0.001$), and language skills ($Mean = 6.27, SD = 0.83, p < 0.001$ vs. $Mean = 5.04, SD = 1.48, p < 0.001$). Only gender is equally distributed between both groups and does not show significant differences between both countries (Table 2).

² A Cronbach's Alpha of 0.7 is recommended for our purpose (Kline 1999; Field 2009). However, Schmitt (1996) states that even lower scales e.g., below 0.5 are acceptable and do not strongly violate scale validity. Cronbach's Alpha furthermore depends on the number of items forming the factor (Cortina 1993; Field 2009), which may explain the low Cronbach's Alpha in our study.

³ Due to the small sample size and that 20% of the cells have expected frequencies lower than five, the Fisher's exact test is considered a superior test compared to other similar approximation methods like the chi-square test (Field 2009).

Table 1. Correlations and descriptive statistics of measurement variables.

Variables	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) Risk-taking	5.40	0.95	1.000											
(2) Innovativeness	5.49	1.07	0.193 *	1.000										
(3) Proactiveness	5.69	0.82	0.405 ***	0.390 ***	1.000									
(4) Int. Cognition	5.86	0.71	0.307 ***	0.182	0.482 ***	1.000								
(5) Int. Knowledge	5.37	1.02	0.176	0.090	0.261 **	0.376 ***	1.000							
(6) Int. Behavior	5.31	0.93	0.129	0.247 **	0.346 ***	0.406 ***	0.331 ***	1.000						
(7) Age	29.77	5.81	0.237 *	-0.112	-0.055	0.160	0.283 **	0.033	1.000					
(8) Gender (female = 1)	0.14	0.34	-0.046	-0.134	-0.018	-0.004	-0.029	0.116	0.043	1.000				
(9) Education	3.63	0.75	0.130	-0.119	-0.078	0.222 *	0.242 *	-0.010	0.430 ***	0.090	1.000			
(10) Int. studies (yes = 1)	0.46	0.50	0.226 *	-0.177	0.074	0.165	0.339 ***	0.047	0.346 ***	0.066	0.329 ***	1.000		
(11) Language skills	5.69	1.33	0.264 **	-0.027	0.196 *	0.394 ***	0.447 ***	0.139	0.140	-0.023	0.346 ***	0.365 ***	1.000	
(12) Country (Pakistan = 1)	0.47	0.50	-0.322 ***	0.096	-0.073	-0.244 **	-0.315 ***	0.186 *	-0.280 **	0.044	-0.519 ***	-0.472 ***	-0.465 ***	1.000

Notes: Germany n = 59/Pakistan n = 53; ***: $p < 0.001$, **: $p < 0.01$, *: $p < 0.05$, $p > 0.05$ 'n.s.' (two-tailed test).

Table 2. Means, Standard Deviations, and Fisher's exact test.

Variables	Germany		Pakistan		Fisher's Exact Test
	Mean	SD	Mean	SD	
Age	31.31	5.18	28.06	6.04	***
Gender	0.12	0.33	0.15	0.36	n.s.
Education	3.00	0.62	2.25	0.62	***
Int. Studies	0.68	0.47	0.21	0.41	***
Language skills	6.27	0.83	5.04	1.48	***

Notes: Germany n = 59/Pakistan n = 53; ***: $p < 0.001$, **: $p < 0.01$, *: $p < 0.05$, $p > 0.05$ 'n.s.' (two-tailed test).

Results from MANOVA, ANOVA, and the Mann-Whitney-*U* test are displayed in Table 3. MANOVA results show that EO ($F(3, 108) = 5.36$, Wilks' Lambda = 0.871, $p < 0.01$) and GM ($F(3, 108) = 12.35$, Wilks' Lambda = 0.745, $p < 0.001$) significantly differ across both countries⁴, concluding that EIT is affected by the country. Therefore, Hypothesis 1 is confirmed.

Table 3. Results of MANOVA, ANOVA, and Mann-Whitney-*U* test.

Construct	Variables	MANOVA	ANOVA
		Wilks' Lambda	F
EO	Risk-taking	0.871 **	12.70 ***
	Innovativeness		1.02
	Proactiveness		0.58
GM	International Cognition	0.750 ***	6.95 **
	International Knowledge		12.14 ***
	International Behavior		3.96 *
df/Error df		3/108	1/110

Notes: Germany n = 59/Pakistan n = 53; ***: $p < 0.001$, **: $p < 0.01$, *: $p < 0.05$, $p > 0.05$ 'n.s.' (two-tailed test).

Separate ANOVAs on the dimensions show significant country effects on risk-taking ($F(1, 110) = 12.70$, $p < 0.001$), international cognition ($F(1, 110) = 6.95$, $p < 0.01$), international knowledge ($F(1, 110) = 12.14$, $p < 0.001$), and international behavior ($F(1, 110) = 3.95$, $p < 0.05$). However, ANOVA results do not show significant values for the dimensions of innovativeness and proactiveness.

The statistical results of the Mann-Whitney-*U* test and the effect size⁵ estimate r , show that German entrepreneurs possess significantly higher levels of risk-taking ($Mdn = 5.50$; $r = 0.29$, $p < 0.01$), international cognition ($Mdn = 6.00$; $r = 0.24$, $p < 0.01$), and international knowledge ($Mdn = 5.67$; $r = 0.33$, $p < 0.001$) than their fellows from Pakistan ($Mdn = 5.25/5.75/5.00$). Interestingly, we found that levels of international behavior are significantly higher in Pakistan ($Mdn = 5.60$; $r = 0.18$, $p < 0.01$) than in Germany ($Mdn = 5.00$). This indicates that Pakistani entrepreneurs act more internationally than German entrepreneurs. Furthermore, the results do not show significant values for the dimensions of innovativeness and proactiveness. According to this result, entrepreneurs from both countries have comparable levels of innovativeness ($Mdn = 5.50$ Germany/5.75 Pakistan) and proactiveness ($Mdn = 5.75$ both).

The Mann-Whitney-*U* results show complete agreement with the ANOVA results. Consequently, we accept Hypotheses 2, 5, 6, and 7 and reject Hypotheses 3 and 4.

⁴ We use a two-tailed test because no specific assumptions have been made about which country has higher scores on the dimensions.

⁵ Based on the fact that the statistical results do not provide information about the nature or size of the effect, we estimated the effect size r by converting the z-score (Field 2013; Rosenthal 1991).

5. Discussion

The purpose of this study was to examine how entrepreneurs from Germany and Pakistan differ in their EIT based on assessment of EO and GM at the individual level. Our findings show that the distribution of EIT is affected by the country, and; therefore, presumably by institutional environment and national culture, indicating support for using the institutional theory and mindset theory in the study context.

In case of risk-taking we found that entrepreneurs based in Germany show higher levels than their fellows in Pakistan. This may be related to the stable institutional environment that Germany offers for entrepreneurial ventures (Baron and Harima 2019; Sternberg et al. 2018). The higher levels of institutional support and social security German entrepreneurs enjoy could mean that they can afford to take more risks. Pakistan on the contrary is characterized by political instability and business burdens, which impact the trust in formal institutions and restrict aspects of entrepreneurial behavior (Nishat and Nadeem 2016; Williams and Shahid 2016). Existence of uncertainty is found to cause high level of risk avoidance (Stewart et al. 2008). Thus, it is evident that the uncertain and volatile environment of Pakistan amplifies perceived risks due to, for example, turnover fluctuations, inflation and resource scarcity, and challenging entrepreneurial firm growth (Muhammad et al. 2016). It may be expected that even a venturesome entrepreneur may act more risk-averse in an unstable environment with low institutional and social support due to fear of failure and existential loss (Muhammad et al. 2016).

Against our expectation, we found that entrepreneurs in advanced markets and entrepreneurs in developed markets show comparable levels of innovativeness and proactiveness for which we give two possible explanations. First, entrepreneurial individuals like our respondents—who are based in incubators and innovation spaces—are innovative and proactive by nature. This would indicate that innovativeness and proactiveness are essential cognitive factors of every individual engaged in high-growth entrepreneurship and; therefore, related to a universal entrepreneurial mindset (Mitchell et al. 2002; Stewart et al. 2008). Second, our finding is consistent with GEM data, which shows almost equal and above-average innovation rates in both countries (GEM 2018). Pakistani entrepreneurs therefore appear able to catch up with the innovation levels of an innovation-driven economy like Germany. Additionally, conflict-affected environments such as Pakistan's provide business opportunities arising from reconstruction and constant change (Desai 2011), which innovative individuals proactively exploit to fill market gaps (Muhammad et al. 2016). We argue that founders of high-growth entrepreneurial firms in Pakistan have thus managed to successfully exploit business ideas and innovate in an unfavorable institutional environment, which could not have taken place without high levels of proactiveness and innovativeness.

Our analysis reveals cross-national differences in international cognition, consistent with prior findings (Felício et al. 2013; Felício et al. 2016). Felício et al. (2016) assume that entrepreneurs from Norway with a highly-individualistic culture exploit stronger rational behaviors to meet their firms' growth objectives compared to more collectivistic countries like Lithuania and Portugal, which mainly focus on social relationships, cross-disciplinary collaboration, and teamwork to achieve entrepreneurial growth. Contrary to their findings; however, we show that Germany, where individualistic culture highly prevails, has higher levels of international cognitive factors in areas such as cross-disciplinary collaboration and teamwork compared to Pakistan.

Despite having lower international knowledge through travel and contact with people abroad, Pakistani entrepreneurs exhibit higher levels of international behavior. While Germans enjoy being part of the eurozone and the privileges of visa-free travel and frequent contact to neighboring countries, Berlin's entrepreneurial ecosystem is additionally shaped by an international environment due to a high number of migrants (Baron and Harima 2019). However, German entrepreneurs mainly focus on the national market and perform poorly in the cross-country comparison of their internationalization tendencies (Sternberg et al. 2018). Our study is consistent with this finding and found Pakistani entrepreneurs to have higher levels of international behavior. We explain this finding by assuming that German entrepreneurs being involved in TEA potentially do not feel the need to focus on foreign

markets as the national entrepreneurial ecosystem provides favorable conditions in terms of the market opportunities, customers, and networks that entrepreneurial firms need to grow. We assume that German entrepreneurs within their TEA stage first tend to grow locally and might venture abroad in later stages after having had exploited local opportunities. However, the fact that Pakistan is a developing and politically fragile state impacts entrepreneurial growth opportunities within the country (Muhammad et al. 2017; Nishat and Nadeem 2016), pushing Pakistani entrepreneurs to seek knowledge and markets abroad due to the limited opportunities and resources their own country provides (Muhammad et al. 2016). Along with Gaffney et al. (2014) we conclude, that Pakistani entrepreneurs have a higher need for a GM, in particular international behavior, to be competitive.

6. Conclusions and Implication

Our study contributes to IE literature by applying the concepts of EO and GM through the lens of the institutional theory and mindset theory comparatively between a fragile and a stable context. Thus, we developed a framework to investigate how entrepreneurs based in Germany and Pakistan differ in their internationalization tendencies. Results from the study raise three important implications for IE theory and practice.

First, we contribute to theory as we have expanded the use of the institutional theory to a new context and respond to the literature gap mentioned by Bruton et al. (2010) that entrepreneurship studies mainly use the institutional theory in a single-country setting. Furthermore, our study is one of very few studies that applies the mindset theory to capture EIT and investigate GM in a cross-national setting. Thus, we provide empirical evidence on the impact of macrolevel factors, such as institutions and economic development, on microlevel cognitive and behavioral entrepreneurial characteristics, advancing previous research that has been mainly conducted on the macro-country level (Kiss et al. 2012; Terjesen et al. 2016). Thus, our study represents a response to calls for research into how entrepreneurs based in developed and emerging markets differ in cognitive factors associated with entrepreneurial growth (Kiss et al. 2012). Our findings show that EIT are affected by the national context as well as significant cross-country differences in four of six EIT aspects.

Second, our study compares internationalization tendencies across two countries, which combines the fields of entrepreneurial internationalization and international comparisons of entrepreneurship (Jones et al. 2011). Therefore, we contribute to the development of IE literature by addressing the young stream of CEI (Jones et al. 2011) and respond to recent calls or more comparative studies to explore cross-country similarities and differences in entrepreneurial internationalization (Kiss et al. 2012; Terjesen et al. 2016). This provides evidence of similarities and variations in EIT and reduces the risk stemming from the generalization of nation-specific results (Stewart et al. 2008; Terjesen et al. 2016). Our findings could support future scholars in theory development with respect to CEI.

Finally, our study has practical relevance in two ways. First, the findings could aid public policy makers from both countries to identify institutional support and programs that best foster entrepreneurial growth and internationalization. For instance, enhancing international knowledge of Pakistani entrepreneurs through higher exposure to international markets via cultural exchanges, events and pedagogical approaches, such as those involving direct interaction with counterparts in other geographic locations (Musteen et al. 2018), could prove beneficial. Additionally, strengthening institutional structures and providing regulatory support to Pakistani entrepreneurs, such as funding, tax cuts and innovation incentives, could encourage them to take higher risk and venture into new markets. The German government could also incentivize local entrepreneurs to engage with international markets, particularly given their international cognition and international knowledge, while raising awareness within the startup ecosystem on the importance of internationalization for sustained growth and competitiveness.

7. Limitation and Future Research

This study has taken a step in the direction of proving significant variations in modes and patterns of national EIT. However, our research may have its limitations.

First, our data is self-reported and results show a tendency for positive responses as the *Mdn* of the EIT dimension is above five for both countries (Table 3). This indicates that our respondents might have over-estimated their cognitive characteristics related to EIT. However, we are assured that our results are not biased as the bias is rather related to the collection of sensitive data (Carr and Sequeira 2007).

Second, we draw our analysis by focusing on Germany and Pakistan—two contrary countries. Furthermore, we collected data from two cities in Pakistan—Karachi and Lahore—and from one city in Germany—Berlin. It might be that there are also variations on the regional level within a country (Kriz et al. 2016). Furthermore, Berlin is known for its developed startup scene and thus might differ from other cities in Germany as well. Therefore, care needs to be taken when generalizing results to the country-level or the region-level.

Also, the measurement of EO was previously administered and validated largely in western countries and may therefore produce biased results when applied in other national and cultural contexts (Runyan et al. 2012). In addition, other constructs explaining EIT, such as international entrepreneurial intention or international attitude (Jie and Harms 2017; Sommer 2010) could be used in future studies.

Despite these limitations, we are confident that our results are novel and suggest the need for further studies to validate our results by focusing on a greater number of countries and a larger sample size. Our study can also be complimented with a qualitative analysis to explain the results.

Author Contributions: Conceptualization, L.H.M. and L.R.; data curation, L.H.M. and L.R.; Methodology, L.H.M. and L.R.; formal analysis, L.H.M.; writing—original draft preparation, L.H.M.; writing—review and editing, L.H.M. and L.R.; visualization, L.H.M.

Funding: We acknowledge support by the German Research Foundation and the Open Access Publication Fund of TU Berlin.

Acknowledgments: We would like to thank our supervisor Jan Kratzer for his overall support on our research project. Furthermore, we thank M Shahid Qureshi and Mohammad Talha of the IBA Aman Center for Entrepreneurial Development, Omar Javaid of the Institute of Business Management (IoBM), and Areej Mehdi of the MIT Enterprise Forum for their support of the research operations in Pakistan. We would also like to thank all Pakistani startups, and German startups affiliated with the Technical University of Berlin's Centre for Entrepreneurship for participating in the study.

Conflicts of Interest: The authors declare no conflict of interest.

Appendix A

Table A1. Questionnaire variables: items, factor loadings, Cronbach's Alpha, and references.

Variables, Items, and Cronbach's Alpha	Factor loadings	Reference
Risk-taking (4 items, $\alpha = 0.72$) Scale: Totally disagree (=1)/Totally agree (=7)		
1. How well do the following statements on risk-taking describe you?		
2. I am willing to get involved in situations where the outcomes are not certain.	0.752	(Goktan and Gupta 2015)
3. I would rather take my chances and try something new, than regret later about it.	0.555	
4. I enjoy doing things where there is some risk involved.	0.534	
My career choices can certainly involve professions that may involve financial uncertainty for me.	0.813	
Innovativeness (4 items, $\alpha = 0.86$) Scale: Totally disagree (=1)/Totally agree (=7) How well do the following statements on innovativeness describe you?		
1. I like to experiment with new technologies.	0.734	(Goktan and Gupta 2015)
2. Among my peers, I am usually the first one to try out new technologies.	0.857	
3. I am never hesitant to try out new technologies.	0.855	
4. If I heard about something new, I would look for ways to try it out.	0.819	

Table A1. Cont.

Variables, Items, and Cronbach's Alpha	Factor loadings	Reference
Proactiveness (4 items, $\alpha = 0.70$)		
Scale: Totally disagree (=1)/Totally agree (=7)		
How well do the following statements on proactiveness describe you?		
1. If I see something I don't like I fix it.	0.365	(Goktan and Gupta 2015)
2. No matter what the odds, if I believe in something, I will make it happen . . .	0.832	
3. I love being a champion for my ideas even against others' opposition.	0.723	
4. I am always looking for better ways to do things.	0.391	
International Cognition (4 items, $\alpha = 0.69$)		
Scale: Totally disagree (=1)/Totally agree (=7)		
How well do the following statements on cognition describe you?		
1. I encourage cross-disciplinary collaboration.	0.520	(Felício et al. 2016)
2. I am able to listen to others and change my opinion.	0.654	
3. I believe that I can influence what happens around me.	0.768	
4. I am an active member when working in a team.	0.609	
International Knowledge (3 items, $\alpha = 0.40$)		
Scale: Totally disagree (=1)/Totally agree (=7)		
How well do the following statements on knowledge describe you?		
1. In my job, I am in contact on a daily basis with international clients, suppliers, and employees.	0.545	(Felício et al. 2016)
2. I have gained experience from international travel.	0.742	
3. I have other relevant experience.	0.506	
International Behavior (5 items, $\alpha = 0.76$)		
Scale: Totally disagree (=1)/Totally agree (=7)		
How well do the following statements on behavior describe you?		
1. I think that internationalization is the only way to achieve the growth objectives.	0.619	Adapted from (Felício et al. 2016)
2. I am willing to lead the enterprise into the international market.	0.610	
3. I spend considerable amounts of time planning international operations.	0.699	
4. I see the world as a single, vast market.	0.825	
5. I see the world not only as a playground (i.e., a new market to explore) but also as a school (i.e., a source of new ideas and knowledge).	0.701	
Demographics		
In which country are you currently based? (Open)		
What is your age in years? (Open)		
Which gender do you identify with? (Female = 1)		
Please specify the highest level of education you attained. (High School = 1; Technical Training/College = 2; Bachelor's Degree = 3; Master's Degree = 4; Doctorate = 5)		
Have you studied abroad? (Yes = 1)		
Please specify your foreign language skills level of your first foreign language. (Not existent (=1)/Excellent (=7))		

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