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The Formation of Student Entrepreneurial Intention and Behaviour - An International Perspective

Ph.D. thesis submitted for the degree of Doctor of Applied Economics at the University of Antwerp to be defended by Tùng Thanh PHAN

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Antwerp, 2023

The Formation of Student Entrepreneurial Intention and Behaviour – an International Perspective

(De Vorming van de Ondernemer Intentie en Gedrag van Studenten – Een Internationaal Perspectief)

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Ph.D. thesis submitted for the degree of Doctor of Applied Economics

(Doctor in de toegepaste economische wetenschappen)

University of Antwerp

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List of Abbreviations

APS	=	Adult Population Survey
AVE	=	Average Variance Extracted
CFI	=	Comparative Fit Index
CI_{95}	=	95% Confidence Interval
CQ	=	Cultural Quotient / Intelligence
EI	=	Entrepreneurial intention
GDP	=	Gross Domestic Product
GEM	=	Global Entrepreneurship Monitor
GUESSS	=	Global Entrepreneurial Spirit Students' Survey
IEI	=	International Entrepreneurial Intention
IEIS	=	Individual Entrepreneurial Intention Survey
MCQ	=	Motivational Cultural Quotient / Intelligence
MDS	=	Multidimensional scaling
MIE	=	Micro Enterprises
NES	=	National Expert Survey
PLS	=	Partial Least Square
PVQ	=	Portrait Value Questionnaire
RMSEA	=	Root Mean Square Error of Approximation
SEM	=	Structural Equation Modelling
SME	=	Small and Medium-Sized Enterprises
SRMR	=	Standardized Root Mean Square Residual
SVS	=	Schwartz's Value Survey
TLI	=	Tucker Lewis Fit Index

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Acknowledgements

I would like to express my most sincere gratitude and appreciation to everyone who has supported and contributed to the completion of this doctoral thesis.

First and foremost, I am immensely grateful to my supervisor, Professor Johanna Vanderstraeten and Professor Hendrik Slabbinck, for their guidance, expertise, and unwavering support throughout this entire research journey. Their insightful feedback, constructive criticism, and constant encouragement have been invaluable in shaping the direction and quality of this thesis. I am truly fortunate to have had such a dedicated mentor. I am indebted to the members of my thesis committee, Professor Carolyn Declerck and Professor Malte Runge, for their valuable insights, scholarly expertise, and constructive suggestions. Their thoughtful contributions and rigorous examination have greatly enriched this work.

I extend my appreciation to the faculty and staff of the Department of Management, Faculty of Business and Economics, for providing me with a stimulating academic environment and access to the necessary resources. Their commitment to excellence in research and education has been instrumental in shaping my intellectual growth and development.

My gratitude extends to my colleagues and fellow researchers who have offered their support, encouragement, and valuable discussions. Their diverse perspectives and collaborative spirit have contributed to the broader understanding of the research topic.

I would also like to acknowledge the participants of my study, without whom this research would not have been possible. Their willingness to share their time, experiences, and insights has been integral to the empirical foundation of this thesis.

Furthermore, I am deeply grateful to my family and friends for their unwavering support, patience, and understanding throughout this demanding endeavour. Their encouragement, love, and belief in my abilities have been a constant source of motivation.

Especially, I would like to express my deepest gratitude to Linh Thùy Nguyễn – my wife, my lifelong partner, for her unwavering support and love throughout this incredible journey. Your unwavering belief in my abilities, encouragement during challenging times, and

endless patience have been the cornerstone of my success. Your constant presence by my side, cheering me on, and sacrificing your own time and ambitions to help me achieve my goals is truly remarkable. This achievement would not have been possible without you.

Lastly, I express my gratitude to all those unnamed individuals who have played a role, no matter how small, in supporting me during this academic pursuit. Their contributions, be it in the form of moral support, technical assistance, or personal encouragement, have been deeply appreciated.

Completing this doctoral thesis has been a challenging but immensely rewarding experience, and I am grateful for the collective support and guidance that has accompanied me on this journey.

Thank you all.

Tùng Thanh Phan

Summary (English)

International entrepreneurship is a large research topic, which consists of two separate streams of literature (Baker et al., 2005; Oviatt and McDougall, 2000). First is the research branch on entrepreneurial internationalization, which focuses on the cross-border operation of entrepreneurial firms (Jie et al., 2021; Reuber et al., 2018). Second is the comparative international entrepreneurship research, which concerns the cross-country comparison of entrepreneurial activities (Terjesen et al., 2016).

The new conditions of the modern era, such as the advancements in technology and communication, pose new challenges and opportunities to both branches of international entrepreneurship research. For entrepreneurial internationalization studies, the rise of early-internationalization or born-global firms in the recent decades (Knight and Cavusgil, 2004) asks for knowledge on the entrepreneurs' pre-foundation intention to internationalize – namely international entrepreneurial intention. Meanwhile, the increased collaboration of academic endeavours allows comparative international entrepreneurship researchers to have large-scale and fine-grain international studies to complement the existing comparative studies that are limited to using country aggregate statistics (Terjesen et al., 2016).

Through three essays in this dissertation, we address these emerging research inquiries in the international entrepreneurship research domain. The essays included in the dissertation are manuscripts that were completed during the Doctoral program at the University of Antwerp from 2019 to 2023. Each essay in the dissertation is constructed as a standalone paper.

The first essay follows the call for further understanding of the connections between personality traits and internationalization (Fayolle et al., 2014). We build upon the knowledge regarding the role of personal values (Schwartz, 2003) in the entrepreneurship research domain (Hueso, Jaén, and Liñán, 2020). Our results highlight the significant relationship between personal values and international entrepreneurial intention. Furthermore, we address the often-overlooked nature of personal values that they are not always malleable (Bardi et al., 2009; Vecchione et al., 2016). We explore how policymakers can influence the impact of personal values on intention via measures such as improving

entrepreneurial education or increasing exposure to entrepreneurial role models. To test our hypotheses, we used a database of 410 bachelor students at the University of Brawijaya, Indonesia. This database was collected in 2019 by Radityo Handrito, a fellow Ph.D. candidate at the University of Antwerp (Handrito, 2021)

In our second essay, we steer away from personality traits and focus on a more state-like individual aspect, namely cultural intelligence (Ang and Van Dyne, 2008). More importantly, in this essay, we build upon theoretically connected concepts – namely motivation and intention (Bird, 2015), as well as cultural intelligence and internationalization (Fang et al., 2018). By combining these pairs of concepts, we propose the use of Motivational cultural intelligence as a theoretical framework for studying international entrepreneurial intention. For this essay, we used the data that we collected for the Global University Entrepreneurial Spirit Students' Survey (GUESSS) project in 2021. GUESSS is an international project, which concerns the entrepreneurial intention and activities of students (Sieger et al., 2021). We acted as Belgian country delegate for the 2021 edition of the GUESSS project and collected data from Belgian students. The sample size of this study is 473. The results of our tests support our proposition, as motivational cultural intelligence fully mediates the impact of international knowledge and international experience – two common factors when studying internationalization – on the intention to internationalize.

Finally, we use our third essay to address the branch of comparative international entrepreneurship research. We observe that the impact of culture on entrepreneurial activities has been limited to the country-level perspective, in which cultures are limited to country-level aggregated scores. Specifically, the concept of power distance in culture (Hofstede, 2001) has been widely accepted as having a negative impact on entrepreneurial activities. In this essay, we respond to the call for a more fine-grained exploration of culture in the international entrepreneurship domain (Kirkman et al., 2017; Taras et al., 2010), and explore how entrepreneurial activities are influenced by individual-level perception of power distance culture in their surrounding environment. Our results point out that while previous country-level analyses concluded that power distance has a negative impact on entrepreneurship, this is not necessarily the case on individual-level – as suspected by Taras et al., (2010). Instead, this relationship between power distance and entrepreneurial

behaviours is contingent on contextual factors as well – in our case, the moderating effects of entrepreneurial institutions (Busenitz et al., 2000; Scott, 1995). In order to test our hypotheses, we utilized the full international database collected by the GUESSS project in 2016, combined with the secondary data on entrepreneurial institutions from other sources, such as the 2015-2016 reports of the Global Entrepreneurship Monitor project (GEM). The final dataset for this essay comprises 107,156 responses from 39 countries.

By addressing both branches of international entrepreneurship topic, this dissertation made a holistic contribution to this research domain. First, by exploring the antecedents of international entrepreneurial intention, we add to the effort of understanding the emerging phenomena of early internationalization and born-global (Knight and Cavusgil, 2004). Educational organizations and policymakers can also utilize our findings to stimulate international entrepreneurial intention and consequently foster increased international entrepreneurship. Second, we add to the comparative international entrepreneurship literature by calling for revisiting the consensus that was constructed using country-level values, such as the relationship between national culture and entrepreneurship. Entrepreneurship is, by nature, an individual-level decision (McMullen and Shepherd, 2006; SShane and Venkataraman, 2000). Understanding the variance of national culture and how institutions impact entrepreneurship on the individual level is, therefore, crucial in stimulating entrepreneurship within a country.

Samenvatting (Nederlands)

Internationaal ondernemerschap is een groot onderzoeksonderwerp dat bestaat uit twee afzonderlijke literatuurstromen (Baker et al., 2005; Oviatt en McDougall, 2000). Ten eerste is er de onderzoekstak met betrekking tot de internationalisering van ondernemingen, die zich richt op de grensoverschrijdende activiteiten van bedrijven (Jie et al., 2021; Reuber et al., 2018). Ten tweede is er het vergelijkend internationaal ondernemerschapsonderzoek, dat betrekking heeft op de vergelijking van ondernemingsactiviteiten in verschillende landen (Terjesen et al., 2016).

De moderne tijd biedt met zijn technologische vooruitgang, ook op het vlak van communicatie, nieuwe uitdagingen en kansen voor beide takken van het internationaal ondernemerschapsonderzoek. De afgelopen decennia zijn er steeds meer bedrijven gekomen die al vroeg internationaliseren of zelfs van bij hun oprichting wereldwijd actief zijn (Knight en Cavusgil, 2004). Bij de studie van de internationalisering van bedrijven moet men dan ook de oorspronkelijke intentie tot internationalisering nagaan. Door de toegenomen academische samenwerking beschikken onderzoekers bovendien over grootschalige en fijnmazige internationale studies die kunnen dienen als aanvulling op de bestaande vergelijkende studies, die beperkt zijn tot geaggregeerde statistieken per land (Terjesen et al., 2016).

Dit proefschrift bevat drie essays die ingaan op deze opkomende onderzoeksvragen in het internationaal ondernemerschapsonderzoek. Deze essays zijn manuscripten die werden voltooid tijdens het doctoraatsprogramma aan de Universiteit Antwerpen van 2019 tot 2023. Elk essay is een op zichzelf staande paper.

Het eerste essay sluit aan bij de oproep tot meer inzicht in de verbanden tussen persoonlijkheidskenmerken en internationalisering (Fayolle et al., 2014). We bouwen voort op de kennis over de rol van persoonlijke waarden (Schwartz, 2003) in het ondernemerschapsonderzoek (Hueso, Jaén, en Liñán, 2020). Onze resultaten onderstrepen de significante relatie tussen persoonlijke waarden en de intentie tot internationalisering. Bovendien gaan we in op een eigenschap van persoonlijke waarden die vaak over het hoofd gezien wordt, namelijk het feit dat ze niet altijd kneedbaar zijn (Bardi et al., 2009; Vecchione

et al., 2016). We onderzoeken hoe beleidsmakers de invloed van persoonlijke waarden op de intentie kunnen beïnvloeden via verschillende maatregelen, bijvoorbeeld door het ondernemerschapsonderwijs te versterken of door te zorgen voor meer ondernemende rolmodellen. Om onze hypothesen te testen, gebruikten we een databank van 410 bachelorstudenten aan de universiteit van Brawijaya, Indonesië. Deze databank werd in 2019 samengesteld door Radityo Handrito, een medestudent in de doctoraatsopleiding aan de Universiteit Antwerpen (Handrito, 2021).

In ons tweede essay nemen we afstand van persoonlijkheidskenmerken en richten we ons op een individueel aspect dat eerder een toestand is, namelijk culturele intelligentie (Ang en Van Dyne, 2008). Hierbij bouwen we voort op theoretisch verbonden begrippen, namelijk motivatie en intentie (Bird, 2015) enerzijds, en culturele intelligentie en internationalisering (Fang et al., 2018) anderzijds. Door deze begrippenparen te combineren, stellen wij voor om Motivationele culturele intelligentie als theoretisch kader te gebruiken voor de studie van de intentie tot internationalisering. Voor dit essay hebben we de gegevens gebruikt die we in 2021 hadden verzameld voor het GUESSS-project (Global University Entrepreneurial Spirit Students' Survey). GUESSS is een internationaal project dat betrekking heeft op de ondernemende intentie en activiteiten van studenten (Sieger et al., 2021). Als Belgische delegatie voor het GUESSS-project verzamelden we dat jaar gegevens van Belgische studenten. De steekproefgrootte was 473. De resultaten van onze tests schragen onze stelling, aangezien de impact van internationale kennis en internationale ervaring – twee frequent voorkomende factoren bij de studie van internationalisering – op de intentie om te internationaliseren volledig gemedieerd wordt door motivationele culturele intelligentie.

Tot slot bespreken we in ons derde essay de tak van vergelijkend internationaal ondernemerschapsonderzoek. We stellen vast dat de impact van cultuur op ondernemingsactiviteiten beperkt is tot het perspectief op landniveau, waarbij culturen beperkt zijn tot geaggregeerde scores per land. Van het concept van machtsafstand in de cultuur (Hofstede, 2001) wordt algemeen aanvaard dat het een negatieve invloed heeft op ondernemingsactiviteiten. In dit essay reageren we op de oproep naar een fijnmaziger onderzoek naar cultuur in het internationale ondernemerschapsdomein (Kirkman et al., 2017; Taras et al., 2010) en onderzoeken we hoe ondernemersactiviteiten beïnvloed worden door de perceptie op individueel niveau van de machtsafstandscultuur in de omgeving.

Hoewel eerdere analyses op landniveau concludeerden dat de machtsafstand een negatieve invloed heeft op ondernemerschap, wijzen onze resultaten erop dat dit niet noodzakelijk het geval is op individueel niveau, zoals Taras et al. (2010) vermoedden. In plaats daarvan is deze relatie tussen de machtsafstand en het ondernemend gedrag ook afhankelijk van contextuele factoren. In ons geval zijn dat de temperende effecten van ondernemende instellingen (Busenitz et al., 2000; Scott, 1995). Om onze hypothesen te testen, hebben we gebruikgemaakt van de volledige internationale databank die in 2016 voor het GUESSS-project werd samengesteld, gecombineerd met secundaire gegevens over ondernemende instellingen uit andere bronnen, zoals de verslagen van het Global Entrepreneurship Monitor-project (GEM) uit 2015-2016. De uiteindelijke dataset voor dit essay omvat 107.156 reacties uit 39 landen.

Door beide facetten van het internationaal ondernemerschap te bespreken, levert dit proefschrift een holistische bijdrage aan dit onderzoeksdomein. Ten eerste zijn de antecedenten van de intentie tot internationalisering onderzocht, wat meer inzicht kan bieden in de opkomende fenomenen van vroege internationalisering en wereldwijde activiteit van bij de start (Knight en Cavusgil, 2004). Onderwijsorganisaties en beleidsmakers kunnen onze bevindingen ook gebruiken om de intentie tot internationalisering te stimuleren. Ten tweede stofferen we de vergelijkende internationale ondernemerschapsliteratuur door vraagtekens te plaatsen bij de consensus die tot stand kwam op basis van waarden op landniveau, zoals de relatie tussen nationale cultuur en ondernemerschap. Ondernemerschap is van nature een beslissing op individueel niveau (McMullen en Shepherd, 2006; Shane en Venkataraman, 2000). Inzicht in de variatie van de nationale cultuur en hoe instellingen ondernemerschap op individueel niveau beïnvloeden, is daarom cruciaal bij het stimuleren van ondernemerschap in een land.

References

Ang, S., and Van Dyne, L. (2008). Handbook of cultural intelligence: theory, measurement, and applications. In Choice Reviews Online.

Baker, T., Gedajlovic, E., and Lubatkin, M. (2005). A framework for comparing entrepreneurship processes across nations. Journal of International Business Studies, 36(5), 492–504. https://doi.org/10.1057/palgrave.jibs.8400153

Bardi, A., Lee, J. A., and Hofmann-Towfigh, N. (2009). The Structure of Intra-Individual Value Change. In Journal of personality and social psychology (Vol. 97, Issue 5).

Bird, B. (2015). Entrepreneurial Intentions Research : A Review and Outlook. International Review of Entrepreneurship, 13(3), 143–168.

Busenitz, L. W., Gomez, C., and Spencer, J. W. (2000). Country Institutional Profiles : Unlocking Entrepreneurial Phenomena. Academy of Management Journal, 43(5), 994–1003.

Fang, F., Schei, V., and Selart, M. (2018). Hype or hope? A new look at the research on cultural intelligence. International Journal of Intercultural Relations, 66(April), 148–171. https://doi.org/10.1016/j.ijintrel.2018.04.002

Fayolle, A., Liñán, F., and Moriano, J. A. (2014). Beyond entrepreneurial intentions: values and motivations in entrepreneurship. International Entrepreneurship and Management Journal, 10(4), 679–689. https://doi.org/10.1007/s11365-014-0306-7

Handrito, R. (2021). Essays on Explicit and Implicit Motives, Entrepreneurial Orientation, and Behaviour. https://biblio.ugent.be/publication/8689155/file/8689156

Hofstede, G. (2001). Comparing Values, Behaviours, Institutions and Organizations Across Nations (2nd ed.). Sage Publications, Thousand Oaks, California.

Hueso, J. A., Jaén, I., and Liñán, F. (2020). From personal values to entrepreneurial intention: a systematic literature review. International Journal of Entrepreneurial Behaviour & Research, 205–230.

Jie, S., Harms, R., Groen, A. J., and Jones, P. (2021). Capabilities and Performance of Early Internationalizing Firms: A Systematic Literature Review. Journal of Small Business Management, 1–31. https://doi.org/10.1080/00472778.2021.1955124

Kirkman, B. L., Lowe, K. B., and Gibson, C. B. (2017). A retrospective on Culture's Consequences: The 35-year journey. Journal of International Business Studies, 48(1), 12–29. https://doi.org/10.1057/s41267-016-0037-9

Knight, G. A., and Cavusgil, S. T. (2004). Innovation, organizational capabilities, and the born-global firm. Journal of International Business Studies, 35(2), 124–141. https://doi.org/10.1057/palgrave.jibs.8400071

McMullen, J. S., and Shepherd, D. A. (2006). Entrepreneurial Action and the Role of Uncertainty in the Theory of the Entrepreneur. The Academy of Management Review, 31(1), 132–152.

Oviatt, B. M., and McDougall, P. P. (2000). International Entrepreneurship : The Intersection of Two Research Paths. The Academy of Management Journal, 43(5), 902–906.

Reuber, A. R., Knight, G. A., and Liesch, P. W. (2018). International entrepreneurship : The pursuit of entrepreneurial opportunities across national borders. Journal of International Business Studies, 49(4), 395–406. https://doi.org/10.1057/s41267-018-0149-5

Schwartz, S. H. (2003). A Proposal for Measuring Value Orientations across Nations. Questionnaire Package of the European Social Survey, 259(290), 261.

Scott, W. R. (1995). Institutions and organizations. In Thousand Oaks. CA: Sage Publications.

Shane, S., and Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research. The Academy of Management Review, 25(1), 217–226.

Sieger, P., Raemy, L., Zellweger, T., Fueglistaller, U., and Hatak, I. (2021). (GUESSS) Global Student Entrepreneurship 2021: Insights From 58 Countries 2021 GUESSS Global Report. 1–28. http://www.guesssurvey.org/resources/PDF_InterReports/GUESSS_Global_2018.pdf

Taras, V., Kirkman, B. L., and Steel, P. (2010). Examining the Impact of Culture's Consequences: A Three-Decade, Multilevel, Meta-Analytic Review of Hofstede's Cultural Value Dimensions. Journal of Applied Psychology, 95(3), 405–439. https://doi.org/10.1037/a0018938

Terjesen, S., Hessels, J., and Li, D. (2016). Comparative International Entrepreneurship: A Review and Research Agenda. In Journal of Management (Vol. 42, Issue 1). https://doi.org/10.1177/0149206313486259

Vecchione, M., Schwartz, S., Alessandri, G., Döring, A. K., Castellani, V., and Caprara, M. G. (2016). Stability and change of basic personal values in early adulthood: An 8-year longitudinal study. Journal of Research in Personality, 63, 111–122. https://doi.org/10.1016/j.jrp.2016.06.002

Chapter 1: Introduction

1. International entrepreneurship and the two subtopics

The lynchpin of this dissertation is the topic of international entrepreneurship, which can be viewed as the intersection between the topics of entrepreneurship and internationalization (Oviatt and McDougall, 2000). Entrepreneurship has long been recognized as a highly relevant topic in business and management (Estrin et al., 2022; Shane and Venkataraman, 2000; Zahra and Wright, 2011). Entrepreneurs realize available opportunities and fill the small niches in the economy (Casson and Wadeson, 2007), connecting their academic knowledge and practical applications (O'Reilly et al., 2019), and generally act as a positive force in economic development (Baumol and Strom, 2007; Casson and Wadeson, 2007). When new socioeconomic problems arise, such as sustainable development or international crises, entrepreneurs act as a force of innovation and resilience, finding solutions for contemporary challenges (Browder et al., 2022; Mittermaier et al., 2021).

The twenty-first century brings the widespread application of international communication and information technology, and along with them new opportunities for entrepreneurship research (Oviatt and McDougall, 2000). Thanks to new technology, firms can internationalize earlier in the business life cycle (Zahra et al., 2000), and eventually, the phenomenon of born-global is widely recognized (Knight and Cavusgil, 2004). At the same time, a "flatter" word – implying intense networks and interdependence between countries – provides the opportunities and incentives to understand how businesses and entrepreneurs operate differently between countries and regions (Baker et al., 2005; Oviatt and McDougall, 2000).

Based on these two ways of looking at international entrepreneurship, the research domain is effectively split into two research branches, named "internationalization" and "comparative" entrepreneurship studies (Baker et al., 2005). During the last few decades, these two branches of international entrepreneurship have fully developed into large literature domains. A considerable amount of "internationalization" international entrepreneurship explores the cognitive elements and capability antecedents for

internationalization (Jie et al., 2021; Reuber et al., 2018). At the same time, researchers have addressed a large body of "comparative" international entrepreneurship literature that explores how the impact of personal aspects, firm qualities, or country institutions differ between countries (Terjesen et al., 2016). In order to provide a holistic understanding of the international entrepreneurship research topic, we cover both of these branches in our dissertation.

To have a meaningful contribution to the literature of international entrepreneurship – both in terms of "internationalization" and "comparative" branches, we tackle research questions that have been increasingly relevant, yet underdeveloped in each aforementioned branch. In particular, we tackle the "internationalization" branch by examining the international entrepreneurial intention of the pre-foundation period (Jannesari, 2022; Jie and Harms, 2017; Ruzzier et al., 2020). As internationalization is becoming increasingly earlier in the lifetime of an entrepreneurial business (see supra), understanding the pre-foundation period to anticipate early internationalization is becoming increasingly relevant in studying entrepreneurial internationalization. However, studies on the pre-foundation period are overshadowed by studies on already successfully internationalized firms (Jiang et al., 2020). By specifically examining the intention to internationalize future business, we try to shift the attention toward this pre-foundation period of the entrepreneurial process.

For the "comparative" international entrepreneurship research branch, we recognize that the comparisons between countries have been generally confined to using secondary country-level data, overlooking the fine-grain variation of these contexts on lower levels of analysis (Kirkman et al., 2017; Terjesen et al., 2016). The cross-country comparison on both individual and contextual levels is especially relevant when entrepreneurship is considered an individual decision under the influence of context (McMullen and Shepherd, 2006; Shane and Venkataraman, 2000). We follow the call for more fine-grain cross-country entrepreneurship comparison and utilize the increasingly recommended method of multilevel analysis (Terjesen et al., 2016) – a technique with which we can appropriately analyse the impact of culture and institution on both individual and country levels within the same model.

Overall, by choosing the under-researched topics within each branch of the international entrepreneurship domain, we not only meaningfully contribute to both branches, but also guide our readers through the process of entrepreneurship. We go from the pre-foundation period – via examining intention – to the actual foundation of entrepreneurial firms.

2. "Internationalization" studies – Cross-border entrepreneurship and international entrepreneurial intention

2.1. The state of international entrepreneurship literature

Prior to the information technology era, expanding businesses beyond borders was extremely resource-intensive, and was generally exclusive to firms that have established their foothold in the domestic market (Johanson and Vahlne, 1977). However, thanks to the development of new technology such as networking or logistics, the landscape of international businesses has changed (Knight and Cavusgil, 2004). Models that were used to be useful in constructing theoretical frameworks for the internationalization of firms now prove outdated and/or require modifications or reiterations for the new global conditions (Johanson and Vahlne, 1977; Vahlne and Johanson, 2020). Entrepreneurs, with their limited number of resources – both tangible resources such as assets or finance, and intangible assets such as knowledge, experience, or network, now can join foreign markets with relatively low barriers to entry.

Considering how internationalization is increasingly viable and popular in the early stages of an entrepreneurial firm lifespan (Cavusgil and Knight, 2015), the choice of whether to internationalize future business is contemplated even before the firm foundation. Hence, it is important to understand the determinant of internationalization before the entrepreneurial firm is founded – namely the pre-foundation period. The research domain of international entrepreneurship, however, is dominated by the predominant focus on already established international firms, or successful international entrepreneurs (Jiang et al., 2020). This approach implies certain shortcomings. For example, its findings suffer from survivorship bias, as in the majority of cases only successful internationalizing examples are examined (Jiang et al., 2020). Furthermore, the results from examining successfully internationalized firms are also not necessarily compatible with the pre-foundation period, as it is difficult to separate the impact of firm competence and the characteristics of entrepreneurs themselves.

In our dissertation, rather than following the conventional approach of studying internationalization by examining the qualities of firms that have established and/or internationalized, we are interested in exploring the individual qualities of potential international entrepreneurs in their pre-foundation period. To do this, we turn to the concept of intention, namely via the variable of international entrepreneurial intention – IEI (Jannesari, 2022; Jie and Harms, 2017; Ruzzier et al., 2020).

2.2. IEI and its positioning in the literature

Intention is a psychological concept, which represents the "*indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behaviour*" (Ajzen, 1991, p. 181). The concept of intention has been extensively applied in the entrepreneurship research domain, represented by the variable of entrepreneurial intention (EI). EI is generally understood as the intention to found an entrepreneurial business in the future (Thompson, 2009). A large body of literature has thoroughly studied entrepreneurial intention (EI), figuring out its determinants on both individual-level qualities and context-level factors (Liñán and Fayolle, 2015).

Table 1.1: Positioning of IEI in the literature

Entrepreneurial intention	**International entrepreneurial intention**	International business
Behaviour of interest is business foundation	Behaviour of interest is business internationalization	
Explore requirements and qualities for business foundation	Explore requirements and qualities for entrepreneurial business internationalization.	
Explores individual-level qualities		Explores qualities of firms
Focuses on the pre-foundation period (free of capabilities gained from firm operationalization and internationalization)		Studies established firms or firms that have internationalized

The individual-level approach and the pre-foundation focus of entrepreneurial intention are the missing parts that we want to bring to the contemporary international entrepreneurship literature. The combination of the two topics–EI and internationalization–is embodied by the variable of international entrepreneurial intention (IEI). IEI is defined as the intention to internationalize future entrepreneurial businesses of people who have yet to found entrepreneurial firms. This definition implies that you do need to have the intention to found a firm (entrepreneurial intention) to be able to have the intention to internationalize such a firm (international entrepreneurial intention). We will dive deeper into this relationship, as well as how it affects our analyses, in the upcoming section.

Table 1.1 summarizes how the positioning of IEI as a combination of EI and internationalization. As the table portrays, the objective of researching IEI is to expand the knowledge on the internationalization of entrepreneurial firms. The research on IEI therefore, involves qualities and characteristics that determine internationalization. Our approach, however, is different from the conventional ways that entrepreneurial internationalization studies are conducted. In particular, rather than exploring the firm-level competence of businesses that have been established or have internationalized, our approach to IEI focuses on individual-level qualities in the pre-foundation period. In other words, requirements and determinants of internationalization are examined from the perspective of individuals who have yet to found a business, and therefore free of the capabilities that are acquired via firm operation or internationalization.

2.3. The causal relationship between EI and IEI

As the arrow in Table 1.1 suggests, there are causal relationships between the concepts mentioned in the table. The causality is that entrepreneurial intention (EI) precedes international entrepreneurial intention (IEI), which in turn leads to business internationalization. In other words, as implied by the definitions, the intention to internationalize a business (IEI) requires the intention to found said business in the first place (EI).

This causal relationship leads to two difficulties. For instance, it is more difficult to clearly define what the dependent variable of IEI means, when IEI itself contains EI. For example,

if we examine the impact of one's qualities on IEI, it is unclear how much of the impact is on the EI, and how much is on the internationalization aspect of IEI.

This difficulty in drawing the line between the EI aspect and the internationalization aspect of IEI also leads to challenges in clearly pointing out the contributions of IEI studies. This is because while IEI is a relatively new and underdeveloped research topic (Jannesari, 2022; Jie and Harms, 2017), the literature on EI has been thoroughly developed (Liñán and Fayolle, 2015). If the unique identity of IEI (namely the internationalization aspect) is not sufficiently addressed, the two concepts of EI and IEI will be hardly distinguishable, and consequently, the contribution of studying IEI will be unclear. Studies on IEI, therefore, need to avoid stepping on the well-trodden research avenue of EI, and focus specifically on the internationalization aspect of IEI.

Our dissertation applied several solutions to address these difficulties in differentiating between EI and IEI and in displaying the contribution of IEI research. In the first essay, we added EI as a control variable. By doing this, the variance of IEI because of EI is excluded from our main analyses, and the relationships between our independent variables and IEI only concern the internationalization aspect of IEI. In the second essay, we control the variance of EI by selecting a dataset that is homogenous in their EI. Thanks to this homogeneity of EI, the variation of IEI and the impacts of the independent variables on IEI are specific to the internationalization aspect of IEI.

These solutions address the aforementioned difficulties. The first difficulty regards the difficulty of knowing how much of the analysis retreads the existing knowledge of EI and how much is new and unique to internationalization. By controlling for the variance of EI, we make sure that our model measures specifically the variation of the internationalization aspect–the aspect that differentiates IEI from (generic) EI, without explaining the formation of EI.

Not only solving the methodological difficulty, controlling for the variance of EI also addresses the second difficulty by highlighting the theoretical contribution of IEI. By showing that we can measure and explain the variance of IEI, even when controlling for the intention to found an entrepreneurial business (EI), we emphasize the unique aspects of IEI, and warrant studying the formation of IEI as a separate research topic.

3. "Comparative" studies – Cross-national comparison of entrepreneurial behaviour.

While it is arguable that the characteristics of the firm leaders play a large role in the formation and orientation of the firm – due to the small scale of entrepreneurial businesses (Hambrick, 2007), entrepreneurship literature also points out that the individual-level characteristics are inseparable from the context (Baker et al., 2005; McMullen and Shepherd, 2006; Shane and Venkataraman, 2000). Entrepreneurs, for example, are confined by the information and opportunities they can access, whether there are resources for them to mobilize to realize the opportunities, or how their businesses fit into the country's socioeconomic landscape (Baker et al., 2005). Comparing entrepreneurial behaviours across different contexts, such as cross-national comparisons, is an integral facet of international entrepreneurship studies (Baker et al., 2005; Oviatt and McDougall, 2000)

As has been pointed out by various global entrepreneurial reports, such as Global Entrepreneurship Monitor (GEM) (Bosma et al., 2021) or Global Entrepreneurial Spirit Students' Survey (GUESSS) (Sieger et al., 2021), entrepreneurial behaviours are vastly different across countries. The differences range from the percentage of people identified as entrepreneurs in each country (Bosma et al., 2021), to the type of entrepreneurial behaviour that is prevalent in each country (Acs et al., 2008; Urbano et al., 2016). The level of support that the national environment provides to entrepreneurs varies vastly between countries as well. This supportive environment includes the normative culture of each nation (Hofstede, 2001; House et al., 2004), the supportive policies of the contemporary government, (Busenitz et al., 2000; Kostova, 1997; Scott, 1995), or the programs that are designed specifically to support entrepreneurial behaviours (Levie and Autio, 2008).

These complexities lead to the necessity to examine the differences in entrepreneurial behaviours between countries (Kirkman et al., 2017; Terjesen et al., 2016). However, this task faces several difficulties, and it is quite common to see entrepreneurship studies confined to one country or region. The difficulty of conducting multinational studies is due to the difficulty of having an international dataset of sufficient size. A number of comparative international entrepreneurship studies found ways to mitigate this problem by using secondary country-level, which implies other shortcomings. In such an approach,

either individual-level variables are regressed to country-level variables, or aggregated country-level statistics are assigned to individuals. Unfortunately, this approach commits (reverse) ecological fallacy, or overlooks the variation in levels lower than country-level (Kirkman et al., 2017; Terjesen et al., 2016).

A more appropriate approach to examining cross-country entrepreneurial behaviour is to use a multi-level model – which is our approach to comparing entrepreneurship across nations. The strength of the multilevel model is that it conserves both the individual characteristics of entrepreneurial behaviour and the role of country-level elements (Field et al., 2012; Hox, 2010). We fully utilize this strength of the multilevel model, and simultaneously examine the impact of both individual-level factors and institutional support on entrepreneurial behaviour.

4. Overview of the dissertation

Table 1.2 below displays the overall structure of the dissertation, and the following section provides the introductory details of the essays. As we have previously demonstrated, international entrepreneurship is a broad research domain. Therefore, in this dissertation, we intend to tackle this topic holistically. We spend our first two essays on the topic of entrepreneurial internationalization, via the examination of IEI. After that, the third essay tackles the topic of comparative studies, using extensive international data. By doing this, we make sure that both branches of international entrepreneurship are adequately addressed.

Furthermore, to increase the breadth of our research, the two essays on IEI were written so that their scopes are theoretically mutually exclusive. In particular, while in the first essay, we examine the impact of personal values – factors that are more likely to be static or inert (Schwartz, 2005; Vecchione et al.., 2016), in the second essay we turned our attention to cultural intelligence – factors that are highly malleable (Ang and Van Dyne, 2008). These two opposing approaches allow us to exhaustively understand and deduct implications on how personal aspects affect IEI.

The breadth of our research is not only from the international entrepreneurship perspective, but also in terms of the entrepreneurial process. Specifically, the dependent variables in our studies range from the pre-foundation intention in essays one and two, to the actual

entrepreneurial behaviour in essay three. Therefore, the essays progressively describe the steps of founding entrepreneurial firm – as demonstrated by Table 1.2.

This dissertation is constructed with each essay acting as a standalone academic paper. This format, which implies a loose connection between each essay, benefits our intention to approach the vast research landscape of international entrepreneurship in an extensive and exhaustive manner.

The first essay concerns the relationship between personal values and IEI. Personal values represent the personal priorities and importance that guide daily evaluations and behaviours (Bardi and Schwartz, 2003; Schwartz, 2003). The personal value model by Schwartz (2003) displays ten basic human values, divided into four groups: self-enhancement, openness to change, self-transcendence, and conservation. Studies in the entrepreneurship domain have shown that certain groups of values such as openness to change or self-enhancement have a positive relationship with entrepreneurship, while conservation tends to have a negative relationship (Hueso, Jaén, and Liñán, 2020). Openness to change and self-enhancement are also congruent with characteristics of business internationalization (Carter, 2011; Oviatt et al., 2004; Schwartz, 2003; S. Shane et al., 2003; Zhou, 2007) while conservation and self-transcendence have opposite effects (Hueso, Jaén, Liñán, et al., 2020; Yang et al., 2015). While arguing for the relationship between personal values and IEI, we also explore the interaction of personal values on two relevant contextual factors, which are entrepreneurial role models – represented by having parents as entrepreneurs (Bloemen-Bekx et al., 2019; Schmitt-Rodermund, 2004; Schoon and Duckworth, 2012), and entrepreneurial knowledge, obtained via entrepreneurial education (Peterman & Kennedy, 2003; Roxas, 2014; Wang & Wong, 2004).

The second essay approaches IEI from a more theoretical standpoint. Since IEI is a rather underexplored topic, this concept lacks a specific theoretical framework that systematizes the antecedents of IEI. We apply motivational cultural intelligence (MCQ) (Ang and Van Dyne, 2008) as the theoretical framework for IEI. The suitability of MCQ as the theoretical framework of IEI is twofold. First, MCQ originates from the value-expectancy theory of motivation (Ang and Van Dyne, 2008; Eccles and Wigfield, 2002), which has a close relation with intention in entrepreneurship settings (Bird, 2015). Second, MCQ represents the

personal interest and confidence to engage in cross-cultural situations (Ang and Van Dyne, 2008) – a crucial aspect in international business (Coviello, 2015; Oviatt and Mcdougall, 2005). In this essay, we use MCQ as a mediating mechanism, bundling the effect of two variables on IEI: international experience and international knowledge. The former represents international contact via staying abroad (Shannon and Begley, 2008; Wood et al., 2014), and the former stands for exposure to international-related education and insight within one's home country (Macnab, 2012).

Table 1.2: Overview of the dissertation essay content

The entrepreneurial process	
Cross-border entrepreneurship – International entrepreneurial intention	**Essay 1:** Would you aim for internationalization at business foundation? Unravelling the impact of personal values, role models and entrepreneurial knowledge on international entrepreneurial intention **Essay 2:** Stimulating international entrepreneurial intention – the mechanism of motivational cultural intelligence
Cross-national comparison of entrepreneurial behaviour	**Essay 3:** The power distance-institutional context interplay in explaining entrepreneurial activity: A multilevel approach

The third essay departs from the topic of internationalization and instead focuses on the comparative facet of international entrepreneurship. The main research question of this essay

is how the impact of power distance on entrepreneurial activities differs between countries. Power distance is one aspect of the Theory of national culture (Hofstede, 2001; House et al., 2004), which has been widely applied in the entrepreneurship research domain. It is generally accepted that countries with higher levels of power distance have lower levels of entrepreneurial activities (Hayton et al., 2002; Lee & Peterson, 2000; Mitchell et al., 2000; Shane, 1993; Shane, 1992; Stephan & Uhlaner, 2010; Tian et al., 2018). Yet, thanks to global reports on entrepreneurial activities (Bosma et al., 2021) and culture (GEM, 2017; Hofstede, 2001; Hofstede Insights, 2022; Kelley et al., 2016), we see that there are noticeable exceptions to this consensus.

To explore this intriguing inconsistency, we follow the recent arguments that looking at power distance from a country-level approach overlooks the individual-level variation of power distance (Daniels and Greguras, 2014; Kirkman et al., 2017; Terjesen et al., 2016). This is also in line with how entrepreneurial activities are recognized as inherently individual-level behaviour and require a compatible individual-level representation of power distance. However, directly using aggregated national culture indices on the individual level implies ecological fallacy, in which one assumes that the relationship at the group level is applicable to the individual level (House et al., 2004). Our solution is measuring the individual *perceived power distance (PPD)*, which represents their perception of the level of power distance in their surroundings. Additionally, to represent the difference between countries, we apply the framework of the country's entrepreneurial institutional profile (Busenitz et al., 2000; Kostova, 1997), which is based on institutional theory (Scott, 1995). This framework describes a country's entrepreneurial environment using three pillars: normative, cognitive, and regulatory institutions.

5. Contribution to the field

Our main contribution to the international entrepreneurship research domain is toward how this research domain is shifting and adapting to the new conditions of the modern era. In particular, the modern condition of the global market, such as technological advancement and tight interconnectedness between countries, requires international entrepreneurship to adapt to the new environment (Oviatt and McDougall, 2000). Aspects such as early internationalization, or recognizing the roles and potentials of foreign markets and

internationalization, for instance, are now necessary to be considered during the embryonic stage of entrepreneurial businesses (Coviello, 2015). Additionally, the expanded availability of information also allows researchers to examine the socioeconomic contexts and business behaviours of foreign countries in great detail (Baker et al., 2005).

In parallel with these rapid developments, the research domain of international entrepreneurship studies has to adapt accordingly. In order to follow the aforementioned modern economic activities, the research domain has to (1) further explore the phenomenon of early internationalization–along with its determinants, and (2) make more use of the availability of international data to have a more accurate examination of entrepreneurial activities across countries. We intend to contribute to this adaptation, by seeking gaps in international entrepreneurship literature that are highly relevant to the current state of affairs, yet are generally overlooked, or overshadowed by conventional approaches. Two such gaps in the international entrepreneurship domain are (1) the lack of studies on antecedents of intention to internationalize during the pre-foundation period, and (2) the general negligence of fine-grained understanding of how national cultures impact the decision to found entrepreneurial firms.

In the cases of early entrepreneurial internationalization or born-global start-ups, entrepreneurs might consider the decision to internationalize their businesses before the firm is founded (Ruzzier et al., 2020). To fully understand what drives these increasingly common phenomena, knowledge of pre-foundation intention to internationalize is therefore necessary. We devote our first and second essays to this stream of literature, advancing the understanding of how personal qualities impact the intention to internationalize businesses (Fayolle et al., 2014) while steering away from studies on successfully internationalized firms – which have saturated the internationalization research domain (Jiang et al., 2020). The two essays address two perspectives: the inert, trait-like aspect– which is represented by personal values (Schwartz et al., 2003), and the malleable, state-like aspect – represented by cultural intelligence (Ang and Van Dyne, 2008).

In our first essay, by focusing on how personal values impact pre-foundation intention to internationalize future business, we contribute to the rather limited literature on the relationship between personal values and entrepreneurial intentions (Hueso, Jaén, and Liñán,

2020). Built upon the theoretical connection between values and intention (Fayolle et al., 2014), as well as limited empirical results on the connection between values and entrepreneurial intention (Hueso, Jaén, and Liñán, 2020) and internationalization (Bolzani and Foo 2018), we highlight the significant impact of personal values on IEI. Another contribution of this essay is taking into account the fact that personal values are likely to be inert and hard to be changed deliberately (Bardi et al., 2009; Vecchione et al., 2016), which is oftentimes overlooked in entrepreneurship studies (Hueso, Jaén, and Liñán, 2020). To do this we study how the values interact with external elements such as entrepreneurial education and role models (Bosma et al., 2012; Laviolette et al., 2012; Pittaway and Cope, 2007; Zozimo et al., 2017). Results from these interaction analyses allow us to formulate viable suggestions for policymakers to stimulate IEI, mitigating the difficulties in working directly with personal values caused by their inert nature.

Our second essay reinforces the known impact of experience abroad and knowledge of international subjects on international business, and highlights the role of these factors in stimulating IEI. More importantly, this essay builds upon the relationship between cultural intelligence and international business activities (Ang et al., 2007; Van Dyne et al., 2012), as well as the theoretical connection between motivation and intention (Bird, 2015), and use the overlap of these two concepts – represented by MCQ – to construct a theoretical framework for studying IEI. The literature on the pre-foundation intention to internationalize is still very underdeveloped, and papers on IEI lack a theoretical framework that can tackle both the international and the intention aspects of this variable. By showing theoretical and empirical supports for using MCQ as the theoretical framework, we aim to stimulate the development of a sound theoretical ground for IEI, based on which the research topic of IEI can flourish in the future.

The final essay contributes to the studies on individual-level culture and entrepreneurship. Culture is often used as a country-level control or moderating variable. This approach, while more accessible, implies various fallacies and inaccuracies, such as (reverse) ecological fallacy, and overlooks the variation of culture on levels lower than the country level, such as regional- or individual-level (Terjesen et al., 2016). Recognizing the shortcomings, scholars in the business and management research domain have called for attention to studying the effects of national cultures in more fine-grained manners. This includes examining the

impact of cultures across levels (country, region, organization, individual, etc.), as well as how these impacts differ between different contexts (Kirkman et al., 2017).

Our analyses on the impact of individual perceived power distance on entrepreneurship call for more attention to this stream of literature. The results from our analyses show that on the individual level, the impact of power distance is not necessarily negative, and is contingent on the institutional contexts. This is contrary to the consensus that power distance has a negative impact on entrepreneurial behaviour (Tian et al., 2018; Urbano et al., 2016). Studying cultures such as power distance on the individual level, therefore, is a valuable complement to the conventional country-level approach, drawing a holistic picture of the relationship between culture and entrepreneurship (Taras et al., 2010).

We also advance the stimulation of entrepreneurship by calling for revisiting the practical implications of this topic. Papers using country-level necessarily assume that cultures are uniform within a country. Based on this assumption, practical implications are limited to acknowledging the national culture and formulating policies to compensate for their effects (e.g., Oo et al., 2018; Urbano et al., 2016). However, as our essay points out, national cultures such as power distance are not uniform within a country, and their impacts may differ across countries. Therefore, we suggest that rather than comparing to the culture of foreign countries, governments and policymakers should further understand the variance of culture within their own borders, and formulate entrepreneurial institutions according to this observation. We consider this approach to be more thematically appropriate – considering how entrepreneurial activities are individual-level decisions rather than country-level behaviours, and more feasible – considering that governments can more easily focus on and influence their domestic statistics, compared to following and understanding the intricacy of foreign cultures and entrepreneurial activities.

References

Abessolo, M., Rossier, J., and Hirschi, A. (2017). Basic values, career orientations, and career anchors: Empirical investigation of relationships. Frontiers in Psychology, 8(1556). .org/10.3389/fpsyg.2017.01556

Acs, Z. J., Desai, S., and Hessels, J. (2008). Entrepreneurship, economic development and institutions. Small Business Economics, 31(3), 219–234. .org/10.1007/s11187-008-9135-9

Ajzen, I. (1991). The Theory of Planned Behaviour. Organizational Behaviour and Human Decision Processes, 50(2), 179–221.

Ang, S., and Van Dyne, L. (2008). Handbook of cultural intelligence: theory, measurement, and applications. In Choice Reviews Online.

Baker, T., Gedajlovic, E., and Lubatkin, M. (2005). A framework for comparing entrepreneurship processes across nations. Journal of International Business Studies, 36(5), 492–504. .org/10.1057/palgrave.jibs.8400153

Bardi, A., Lee, J. A., Hofmann-Towfigh, N., & Soutar, G. (2009). The structure of intraindividual value change. Journal of personality and social psychology, 97(5), 913.

Bardi, A., and Schwartz, S. H. (2003). Values and Behaviour: Strength and Structure of Relations. Personality and Social Psychology Bulletin, 29(10), 1207–1220. .org/10.1177/0146167203254602

Baumol, W. J., and Strom, R. J. (2007). Entrepreneurship and economic growth. Strategic Entrepreneurship Journal, 1(3–4), 233–237.

Bird, B. (2015). Entrepreneurial Intentions Research : A Review and Outlook. International Review of Entrepreneurship, 13(3), 143–168.

Bloemen-Bekx, M., Voordeckers, W., Remery, C., and Schippers, J. (2019). Following in parental footsteps? The influence of gender and learning experiences on entrepreneurial intentions. International Small Business Journal: Researching Entrepreneurship, 37(6), 642–663. .org/10.1177/0266242619838936

Bosma, N., Hill, S., Ionescu-Somers, A., Kelley, D., Guerrero, M., and Schott, T. (2021). GEM 2020/2021 Global Report.

Brooks, M. E., Kristensen, K., van Benthem, K. J., Magnusson, A., Berg, C. W., Nielsen, A., Skaug, H. J., Mächler, M., and Bolker, B. M. (2017). glmmTMB balances speed and flexibility among packages for zero-inflated generalized linear mixed modeling. R Journal, 9(2), 378–400. .org/10.32614/rj-2017-066

Browder, R. E., Seyb, S., Forgues, A., and Aldrich, H. E. (2022). Pandemic Makers: How Citizen Groups Mobilized Resources to Meet Local Needs in a Global Health Crisis. Entrepreneurship: Theory and Practice. .org/10.1177/10422587221120206

Busenitz, L. W., Gomez, C., and Spencer, J. W. (2000). Country Institutional Profiles : Unlocking Entrepreneurial Phenomena. Academy of Management Journal, 43(5), 994–1003.

Carter, S. (2011). The Rewards of Entrepreneurship: Exploring the Incomes, Wealth, and Economic Well-Being of Entrepreneurial Households. Entrepreneurship: Theory and Practice, 35(1), 39–55.

Casson, M., and Wadeson, N. (2007). Entrepreneurship and macroeconomic performance. Strategic Entrepreneurship Journal, 1, 239–262.

Cavusgil, S. T., and Knight, G. (2015). The born global firm: An entrepreneurial and capabilities perspective on early and rapid internationalization. Journal of International Business Studies, 46(1), 3–16. .org/10.1057/jibs.2014.62

Coviello, N. (2015). Re-thinking research on born globals. Journal of International Business Studies, 46(1), 17–26. .org/10.1057/jibs.2014.59

Cramer, R. D. (1993). Partial Least Squares (PLS): Its strengths and limitations. Perspectives in Drug Discovery and Design, 1(2), 269–278.

Daniels, M. A., and Greguras, G. J. (2014). Exploring the Nature of Power Distance: Implications for Micro- and Macro-Level Theories, Processes, and Outcomes. Journal of Management, 40(5), 1202–1229. .org/10.1177/0149206314527131
Eccles, J., and Wigfield, A. (2002). MOTIVATIONAL BELIEFS,VALUES, AND GOALS. Annual Review of Psychology, 53(1), 109–132.
Estrin, S., Korosteleva, J., and Mickiewicz, T. (2022). Schumpeterian Entry: Innovation, Exporting, and Growth Aspirations of Entrepreneurs. Entrepreneurship: Theory and Practice, 46(2), 269–296. .org/10.1177/1042258720909771
Fayolle, A., Liñán, F., and Moriano, J. A. (2014). Beyond entrepreneurial intentions: values and motivations in entrepreneurship. International Entrepreneurship and Management Journal, 10(4), 679–689.
Field, A., Miles, J., and Field, Z. (2012). Discovering statistics using R. In Sage publications. .org/10.5860/choice.50-2114
GEM. (2017). Global Entrepreneurship Monitor 2016/17 Global Report.
Hambrick, D. C. (2007). UPPER ECHELONS THEORY: AN UPDATE. Academy of Management Review, 32(2), 334–343.
Hayton, J. C., George, G., and Zahra, S. A. (2002). Entrepreneurship: National Culture and A Review of Behavioural Research. Entrepreneurship Theory and Practice, 26(4), 33–52.
Hofstede, G. (2001). Comparing Values, Behaviours, Institutions and Organizations Across Nations (2nd ed.). Sage Publications, Thousand Oaks, California.
Hofstede Insights. (2022). Country Comparison - Hofstede Insights. Hofstede Insights. .hofstede-insights.com/country-comparison/
House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., and Gupta, V. (2004). Culture, leadership, and organizations: The GLOBE study of 62 societies. In Handbook of Intercultural Training. Sage publications.
Hox, J. J. (2010). Multilevel Analysis Techniques and Applications. Routledge.
Hueso, J. A., Jaén, I., and Liñán, F. (2020). From personal values to entrepreneurial intention: a systematic literature review. International Journal of Entrepreneurial Behaviour & Research, 205–230.
Hueso, J. A., Jaén, I., Liñán, F., and Basuki, W. (2020). The influence of collectivistic personal values on the formation of entrepreneurial intentions. International Small Business Journal: Researching Entrepreneurship. .org/10.1177/0266242620903007
Jannesari, M. T. (2022). Predictors of International Entrepreneurial Intention Among Young Adults: Social Cognitive Theory. Frontiers in Psychology, 13(June). .org/10.3389/fpsyg.2022.894717
Jiang, G., Kotabe, M., Zhang, F., Hao, A. W., Paul, J., and Wang, C. L. (2020). The determinants and performance of early internationalizing firms: A literature review and research agenda. International Business Review, 29(4), 101662. .org/10.1016/j.ibusrev.2019.101662
Jie, S., and Harms, R. (2017). Cross-Cultural Competences and International Entrepreneurial Intention : A Study on Entrepreneurship Education. Education Research International.
Jie, S., Harms, R., Groen, A. J., and Jones, P. (2021). Capabilities and Performance of Early Internationalizing Firms: A Systematic Literature Review. Journal of Small Business Management, 1–31. .org/10.1080/00472778.2021.1955124
Johanson, J., and Vahlne, J.-E. (1977). The internationalization process of the firm—a model of knowledge development and increasing foreign market commitments. Journal of International Business Studies, 8(1), 23–32.
Kelley, D., Singer, S., and Herrington, M. (2016). Global Entrepreneurship Monitor 2015/16 Global Report.
Kirkman, B. L., Lowe, K. B., and Gibson, C. B. (2017). A retrospective on Culture's Consequences: The 35-year journey. Journal of International Business Studies, 48(1), 12–29. .org/10.1057/s41267-016-0037-9

Knight, G. A., and Cavusgil, S. T. (2004). Innovation, organizational capabilities, and the born-global firm. Journal of International Business Studies, 35(2), 124–141. .org/10.1057/palgrave.jibs.8400071
Kostova, T. (1997). Country Institutional Profiles: Concept and Measurement. Academy of Management Proceedings, 1997(1), 180–184. .org/10.5465/ambpp.1997.4981338
Krueger, N. F., Reilly, M. D., and Carsrud, A. L. (2000). Competing Models of Entrepreneurial Intentions. Journal of Business Venturing, 15, 411–432.
Kruse, P., Wach, D., Costa, S., and Moriano, J. A. (2019). Values Matter, Don't They?–Combining Theory of Planned Behaviour and Personal Values as Predictors of Social Entrepreneurial Intention. Journal of Social Entrepreneurship, 10(1), 55–83.
Lee, S. M., and Peterson, S. J. (2000). Culture, entrepreneurial orientation, and global competitiveness. Journal of World Business, 35(4), 401–416. .org/10.1016/S1090-9516(00)00045-6
Levie, J., and Autio, E. (2008). A theoretical grounding and test of the GEM model. Small Business Economics, 31(3), 235–263. .org/10.1007/s11187-008-9136-8
Liñán, F., and Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions: citation, thematic analyses, and research agenda. International Entrepreneurship and Management Journal, 11(4), 907–933. .org/10.1007/s11365-015-0356-5
Macnab, B. R. (2012). An Experiential Approach to Cultural Intelligence Education. Journal of Management Education, 36(1), 66–94.
Marsh, H. W., and Hau, K. T. (2003). Big-Fish-Little-Pond Effect on Academic Self-concept: A Cross-Cultural (26-Country) Test of the Negative Effects of Academically Selective Schools. American Psychologist, 58(5), 364–376. .org/10.1037/0003-066X.58.5.364
McMullen, J. S., and Shepherd, D. A. (2006). Entrepreneurial Action and the Role of Uncertainty in the Theory of the Entrepreneur. The Academy of Management Review, 31(1), 132–152.
Mitchell, R. K., Smith, J. B., Seawright, K. W., and Morse, E. A. (2000). Cross-Cultural Cognitions and the Venture Creation Decision. Academy of Management Journal, 43(5), 974–993.
Mittermaier, A., Patzelt, H., and Shepherd, D. A. (2021). Motivating Prosocial Venturing in Response to a Humanitarian Crisis: Building Theory From the Refugee Crisis in Germany. Entrepreneurship: Theory and Practice.
Nowiński, W., and Haddoud, M. Y. (2019). The role of inspiring role models in enhancing entrepreneurial intention. Journal of Business Research, 96(June 2018), 183–193. https://doi.org/10.1016/j.jbusres.2018.11.005
Morris, M. H., Shirokova, G., and Tsukanova, T. (2017). Student entrepreneurship and the university ecosystem: A multi-country empirical exploration. European Journal of International Management, 11(1), 65–85. .org/10.1504/EJIM.2017.081251
O'Reilly, N. M., Robbins, P., and Scanlan, J. (2019). Dynamic capabilities and the entrepreneurial university: a perspective on the knowledge transfer capabilities of universities. Journal of Small Business and Entrepreneurship, 31(3), 243–263. .org/10.1080/08276331.2018.1490510
Oviatt, B. M., and Mcdougall, P. P. (2005). Defining International Entrepreneurship and Modeling the Speed of Internationalization. Journal of International Entrepreneurship, 29(5), 537–553. .org/10.1111/j.1540-6520.2005.00097.x
Oviatt, B. M., and McDougall, P. P. (2000). International Entrepreneurship : The Intersection of Two Research Paths. The Academy of Management Journal, 43(5), 902–906.
Oviatt, B. M., Shrader, R. C., and McDougall, P. P. (2004). The Internationalization of New Ventures: a Risk Management Model. Advances in International Management, 16, 165–185.
Peterman, N. E., and Kennedy, J. (2003). Enterprise Education: Influencing Students' Perceptions of Entrepreneurship. Entrepreneurship Theory and Practice, 28(2), 129–144. .org/10.1046/j.1540-6520.2003.00035.x

Pittaway, L., and Cope, J. (2007). Entrepreneurship education: A systematic review of the evidence. International Small Business Journal, 25(5), 479–510. .org/10.1177/0266242607080656
Politis, D., Winborg, J., and Dahlstrand, Å. L. (2012). Exploring the resource logic of student entrepreneurs. International Small Business Journal, 30(6), 659–683. .org/10.1177/0266242610383445
Pruett, M., Shinnar, R., Toney, B., Carolina, N., Llopis, F., and Fox, J. (2009). Explaining entrepreneurial intentions of university students : a cross-cultural study. International Journal of Entrepreneurial Behaviour & Research, 571–594.
R Core Team. (2020). R: A language and environment for statistical computing. (.R-project.org/). R Foundation for Statistical Computing, Vienna, Austria.
Reuber, A. R., Knight, G. A., and Liesch, P. W. (2018). International entrepreneurship : The pursuit of entrepreneurial opportunities across national borders. Journal of International Business Studies, 49(4), 395–406. .org/10.1057/s41267-018-0149-5
Ringle, C. M., Wende, S., and Becker, J.-M. (2015). SmartPLS 3. Bönningstedt: SmartPLS. Retrieved from .smartpls.com.
Rosseel, Y. (2012). Lavaan: An R Package for Structural Equation Modeling. JournalofStatisticalSoftware, 48(2), 1–36.
Roxas, B. (2014). Effects of entrepreneurial knowledge on entrepreneurial intentions: A longitudinal study of selected South-east Asian business students. Journal of Education and Work, 27(4), 432–453. .org/10.1080/13639080.2012.760191
Ruzzier, M., Douglas, E. J., Ruzzier, M. K., and Hojnik, J. (2020). International entrepreneurial orientation and the intention to internationalize. Sustainability (Switzerland), 12(14), 1–20. .org/10.3390/su12145647
Schmitt-Rodermund, E. (2004). Pathways to successful entrepreneurship: Parenting, personality, early entrepreneurial competence, and interests. Journal of Vocational Behaviour, 65(3), 498–518. .org/10.1016/j.jvb.2003.10.007
Schoon, I., and Duckworth, K. (2012). Who becomes an entrepreneur? Early life experiences as predictors of entrepreneurship. Developmental Psychology, 48(6), 1719–1726. .org/10.1037/a0029168
Schwartz, S. H. (2003). A Proposal for Measuring Value Orientations across Nations. Questionnaire Package of the European Social Survey, 259(290), 261.
Scott, W. R. (1995). Institutions and organizations. In Thousand Oaks. CA: Sage Publications.
Shane, S. (1993). Cultural influences on national rates of innovation. Journal of Business Venturing, 8(1), 59–73. .org/10.1016/0883-9026(93)90011-S
Shane, S. A. (1992). Why do some societies invent more than others? Journal of Business Venturing, 7(1), 29–46. .org/10.1016/0883-9026(92)90033-N
Shane, S., Locke, E. A., and Collins, C. J. (2003). Entrepreneurial motivation. Human Resource Management Review, 13(2), 257–279. .org/10.1016/S1053-4822(03)00017-2
Shane, S., and Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research. The Academy of Management Review, 25(1), 217–226.
Shannon, L. M., and Begley, T. M. (2008). Antecedents of the Four-Factor model of cultural Intelligence. In Handbook of cultural intelligence: Theory, measurement, and applications (pp. 41–55).
Shinnar, R., Pruett, M., and Toney, B. (2009). Entrepreneurship Education : Attitudes Across Entrepreneurship Education : Attitudes Across Campus. Journal of Education for Business, 84(3), 151–159.
Sieger, P., Raemy, L., Zellweger, T., Fueglistaller, U., and Hatak, I. (2021). (GUESSS) Global Student Entrepreneurship 2021: Insights From 58 Countries 2021 GUESSS Global Report. 1–28. .guesssurvey.org/resources/PDF_InterReports/GUESSS_Global_2018.pdf

Solesvik, M. Z. (2013). Entrepreneurial motivations and intentions: Investigating the role of education major. Education and Training, 55(3), 253–271. .org/10.1108/00400911311309314
Stephan, U., and Uhlaner, L. M. (2010). Performance-based vs socially supportive culture: A cross-national study of descriptive norms and entrepreneurship. Journal of International Business Studies, 41(8), 1347–1364. .org/10.1057/jibs.2010.14
Terjesen, S., Hessels, J., and Li, D. (2016). Comparative International Entrepreneurship: A Review and Research Agenda. In Journal of Management (Vol. 42, Issue 1). .org/10.1177/0149206313486259
Thompson, E. R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. Entrepreneurship: Theory and Practice, 33(3), 669–695. .org/10.1111/j.1540-6520.2009.00321.x
Tian, M., Deng, P., Zhang, Y., and Salmador, M. P. (2018). How does culture influence innovation? A systematic literature review. Management Decision, 56(5), 1088–1107. .org/10.1108/MD-05-2017-0462
Urbano, D., Aparicio, S., and Querol, V. (2016). Social progress orientation and innovative entrepreneurship: an international analysis. Journal of Evolutionary Economics, 26(5), 1033–1066. .org/10.1007/s00191-016-0485-1
Vahlne, J. E., and Johanson, J. (2020). The Uppsala model: Networks and micro-foundations. Journal of International Business Studies, 51(1), 4–10. .org/10.1057/s41267-019-00277-x
Vanderstraeten, J., Slabbinck, H., Phan, T. T., and Ooms, F. (2021). Global University Entrepreneurial Spirit Students Survey - 2021 Belgium National Report. .guesssurvey.org/resources/nat_2021/GUESSS_Report_2021_Belgium.pdf
Vecchione, M., Schwartz, S., Alessandri, G., Döring, A. K., Castellani, V., and Caprara, M. G. (2016). Stability and change of basic personal values in early adulthood: An 8-year longitudinal study. Journal of Research in Personality, 63, 111–122. https://doi.org/10.1016/j.jrp.2016.06.002
Wang, C. K., and Wong, P. K. (2004). Entrepreneurial interest of university students in Singapore. Technovation, 24(2), 163–172. https://doi.org/10.1016/S0166-4972(02)00016-0
Wood, E. D., Peters, H. Y. Z. S., Wood, E. D., St, H. Y. Z., and Short-term, P. (2014). Short-term cross-cultural study tours : impact on cultural intelligence. In The International Journal of Human Resource Management (Vol. 25, Issue 4, pp. 558–570). Taylor & Francis. https://doi.org/10.1080/09585192.2013.796315
Yang, K. P., Hsiung, H. H., and Chiu, Y. J. (2015). The comfort zone of the value circumplex for entrepreneurship: a structural analysis. Career Development International, 20(6), 663–683. https://doi.org/10.1108/CDI-07-2014-0087
Zahra, S. A., Ireland, R. D., and Hitt, M. A. (2000). International Expansion by New Venture Firms: International Diversity, Mode of Market Entry, Technological Learning, and Performance. Academy of Management Journal, 43(5), 925–950. https://doi.org/Doi 10.2307/1556420
Zahra, S. A., and Wright, M. (2011). Entrepreneurship's next act. Academy of Management Perspectives, 25(4), 67–83.
Zhao, X., Lynch, J. G., and Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. Journal of Consumer Research, 37(2), 197–206. https://doi.org/10.1086/651257
Zhou, L. (2007). The effects of entrepreneurial proclivity and foreign market knowledge on early internationalization. Journal of World Business, 42(3), 281–293. https://doi.org/10.1016/j.jwb.2007.04.009

Chapter 2: Data collections and research methodologies

The essays covered in the dissertation are empirical papers. Each paper builds its hypotheses based on the state-of-the-art literature and tests the hypotheses using quantitative methods on student datasets. However, because of the diversity of topics, theories, and concepts involved, this dissertation adopts various databases and methods of analysis.

1. Student entrepreneurship focus.

The studies covered in this dissertation mainly concern the entrepreneurial intention and behaviour of tertiary-education level students. The importance of studying student entrepreneurship stems from how student entrepreneurial behaviours are related to national entrepreneurial behaviour at large.

Students are in a very active period of their careers. Unlike later stages of a career in which people are limited in terms of choices and freedom to pursue entrepreneurship, students can still strongly control and consider their career choices for their future (Pruett et al., 2009; Shinnar et al., 2009). At the same time, they are constantly exposed to new knowledge, ideas, and ideologies (Pittaway and Cope, 2007). This combination creates a particular malleability of students, as their decisions are more strongly influenced by external efforts (Marsh and Hau, 2003; Robins et al., 2005), such as encouragement to create entrepreneurial firms.

Meanwhile, student entrepreneurship is strongly linked to entrepreneurial careers in the future. Familiarized with entrepreneurial career ideas and mindsets during the studying period, students are less likely to deviate from this career in the later stages of their lives (Abessolo et al., 2017). Reports have shown that while many students who intend to follow corporate jobs plan to turn into entrepreneurs in the future, the majority of students who intend to become entrepreneurs during their student period continue with entrepreneurial careers afterward (Vanderstraeten et al., 2021).

However, students need help from stakeholders in order to fulfil their entrepreneurial ideas (Morris et al., 2017; Peterman and Kennedy, 2003). Students have relatively few assets, both in terms of tangible assets such as finance, and intangible assets such as networks or entrepreneurial knowledge (Morris et al., 2017). Stakeholders such as universities and educational institutions, therefore, need to recognize these weaknesses of student entrepreneurship and play an important role in both transferring relevant entrepreneurial knowledge, but also leading entrepreneurs to channels of entrepreneurial resources (Morris et al., 2017; Politis et al., 2012).

Based on these reasons, we believe that how student entrepreneurship is formulated and how to stimulate this phenomenon is an important topic and that relevant stakeholders must be concerned if they want to formulate effective tools, programs, and policies to stimulate entrepreneurial activities in general.

2. Data for the first essay

The first essay uses the data collected at the University of Brawijaya, Indonesia in 2019 (Handrito, 2021), which was gathered by Radityo Handrito – a fellow Ph.D. candidate at the University of Antwerp. The Indonesian dataset is interesting for our study because of several reasons. Small entrepreneurial businesses are a major force in economic development in Indonesia. They are responsible for a substantial portion of economic activities and employment. However, the majority of entrepreneurial businesses in Indonesia do not have sufficient knowledge or ambition to grow and go abroad (Bhasin and Venkataramany, 2010; Tambunan, 2007, 2008). Meanwhile, the growth and internationalization of entrepreneurial firms are crucial in the economic development of countries such as Indonesia. Therefore, we believe that expanding the knowledge of the drivers of entrepreneurial internationalization in Indonesia will significantly contribute to the well-being and development of similar countries.

Bachelor students at the University of Brawijaya (Java, Indonesia) were invited to fill out a questionnaire via several channels. The first channels we utilized were open invitations on social media, via emails, and posters that could be seen around the campus of the University of Brawijaya. If a student volunteered to participate in our study, we asked them to schedule

a time slot at the Entrepreneurship Lab to fill in the questionnaire on the computer. The questionnaire took 45 – 75 minutes to finish, during which the respondents were allowed to eat, drink, and take short breaks. To incentivize participation, we awarded an amount equivalent to 0.80 euros to students who finished the questionnaire. Additionally, we selected five lucky participants to reward an amount equivalent to fifteen euros.

Table 2.1: Demographic statistics of the data for the first essay.

		Number of students (N = 410)
University study program	Entrepreneurship	112
	Business Management	198
	Economics	77
	Non-Faculty of Business and Economics	23
Studying Year	First year	100
	Second Year	120
	Third Year	150
	Fourth (Final) Year	40
Gender	Male	223
	Female	187

To increase student participation, we expanded our invitations to a face-to-face channel. We came into lecture halls to introduce our research and our questionnaire directly to students attending the lectures–after being given permission by the lecturers. To further incentivize students at the lecture halls to participate in our study, they were awarded extra study credits for the subject on which they were receiving lectures.

Table 2.2: The items of PVQ-40 and the corresponding personal values (Schwartz, 2003)

Value	Items	Value	Items
Benevolence	PVQ-1	Achievement	PVQ-21
	PVQ-2		PVQ-22
	PVQ-3		PVQ-23
	PVQ-4		PVQ-24
Universalism	PVQ-5	Power	PVQ-25
	PVQ-6		PVQ-26
	PVQ-7		PVQ-27
	PVQ-8	Security	PVQ-28
	PVQ-9		PVQ-29
	PVQ-10		PVQ-30
Self-direction	PVQ-11		PVQ-31
	PVQ-12		PVQ-32
	PVQ-13	Conformity	PVQ-33
	PVQ-14		PVQ-34
Stimulation	PVQ-15		PVQ-35
	PVQ-16		PVQ-36
	PVQ-17	Tradition	PVQ-37
Hedonism	PVQ-18		PVQ-38
	PVQ-19		PVQ-39
	PVQ-20		PVQ-40

In total, we received 427 responses from students. However, we had to filter out seventeen responses that were either incomplete or had patterned answers. Therefore, we ended up with a dataset of 410 responses. Table 2.1 shows the demographic statistics of the data.

The questionnaire includes items for the full Portrait Values Questionnaire (Schwartz, 2003). This is a set of forty items. Each item is a description of a person, for example: *"Thinking up new ideas and being creative is important to him. He likes to do things in his own original way"* which signifies the personal values of self-direction (Schwartz, 2003). Based on how much the participants relate to the described person (via the question of *"think about how*

much each person is or is not like you"), the participant's personal value scores are calculated. Table 2.2 shows the allocation of the forty items and the ten personal values.

Table 2.3: Descriptive statistics of variables used in the first essay.

	Min	**Max**	**Mean**	**SD**
Age	17.00	30.00	19.685	1.415
Entrepreneurial Parents	0.00	1.00	0.271	0.445
Entrepreneurial Program	0.00	1.00	0.483	0.500
Entrepreneurial intention (EI)	2.33	7.00	5.003	1.382
International entrepreneurial intention (IEI)	1.00	7.00	5.326	0.873
Personal values				
Openness to Change	2.70	5.00	4.161	0.476
Self-Enhancement	1.80	5.00	3.665	0.609
Conservation	2.15	5.00	4.023	0.450
Self-Transcendence	1.90	5.00	4.269	0.426

International entrepreneurial intention adapted from the entrepreneurial intention scale (Thompson, 2009). The composite reliability of items asking for students' entrepreneurial intention and international entrepreneurial intention were 0.898 and 0.914, respectively. Finally, questions regarding the student's background, such as exposure to entrepreneurial knowledge or entrepreneurial role models, are recorded using nominal scales (Solesvik, 2013). In particular, the exposure to entrepreneurial knowledge was operationalized by students' study programs, while the exposure to role models is measured by whether students have parents working as entrepreneurs.

We recognize several shortcomings with this data. The most prominent shortcoming is the representativeness of the population and the generalizability of our results. In particular, there are specific cultures in Indonesia, such as collectivistic tendencies, which can impact

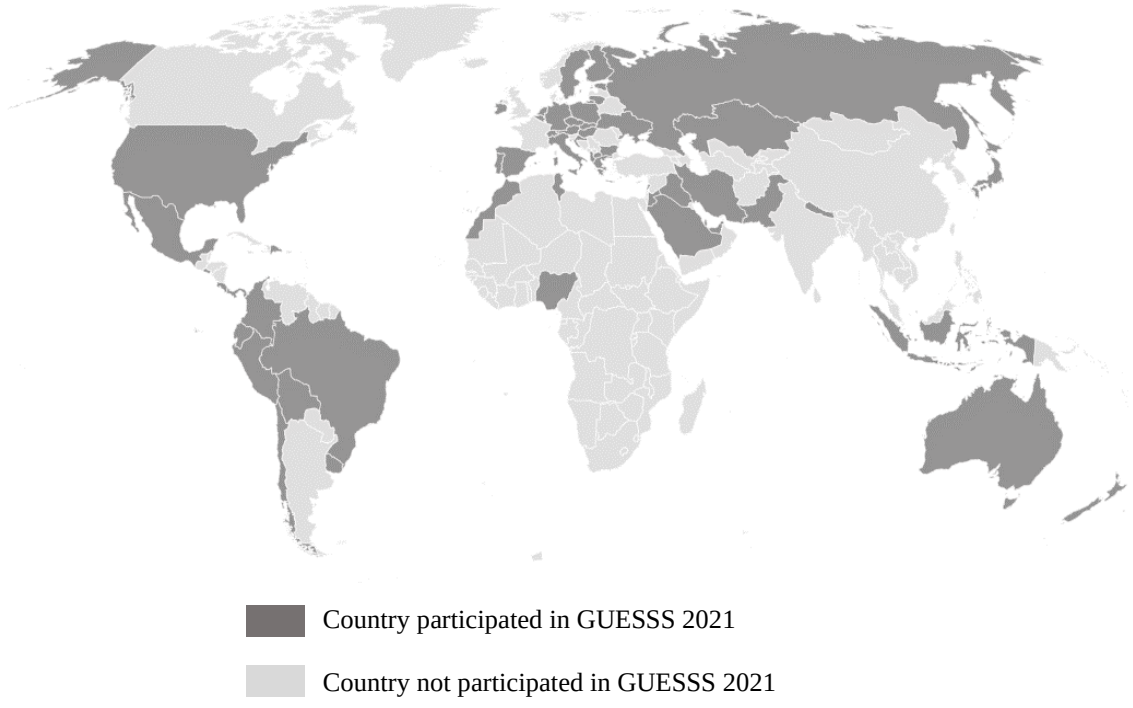
the relationship between personal values and intentions. Furthermore, over 90% of the dataset are students from majors in Entrepreneurship, Business Management, and Economics. These groups may have specific exposure to entrepreneurship-related elements that are not available to students of other majors. These limitations must be considered when generalizing the result of our essay.

3. Data from the GUESSS project – used in the second and the third essay

3.1. The GUESSS project

Figure 2.1: The logo of the GUESSS project

Figure 2.2: Global participation of GUESSS 2021



Founded in 2003 by the University of St. Gallen – Switzerland, the Global University Entrepreneurship Spirit Students' Survey (GUESSS) is an international project, with the goal of providing insight into students' entrepreneurship (Sieger et al., 2021). Every two to three years, the GUESSS project collaborates with scholars, professors, and universities worldwide to collect data from students. In the 2021 edition of GUESSS–which is the ninth data collection wave, the project collaborated with 58 countries and collected over 267,000 responses (Sieger et al., 2021).

The main topic of interest of the GUESSS project is students' entrepreneurial behaviour and entrepreneurial intention. The students' entrepreneurial intentions are measured by asking about the career intention of students after their graduation and 5 years after that, while the students' entrepreneurial activities are recorded via self-report, categorized into (1) students that are not entrepreneurs, (2) students that are in the process of creating a business and (3) students that are already running a firm.

In addition to recording students' entrepreneurial intentions and behaviours, GUESSS is also interested in potential drivers of entrepreneurship. For example, the questionnaire asks for respondents' self-reported entrepreneurial competence, whether the parents of the respondents are working as entrepreneurs, or whether the environment at the respondents' universities supports entrepreneurial intention and activities. The rich international database of the GUESSS project enabled many academic studies, many of which can be found on the project's official website[1].

For the 2021 edition of the GUESSS project, Professor Johanna Vanderstraeten (associate professor at the University of Antwerp), Professor Hendrik Slabbinck (associate professor at Ghent University), Tùng Thanh Phan (Ph.D. candidate at the University of Antwerp) and Frédéric Ooms (University of Liège) acted as the Belgian delegate team for the GUESSS project. The main responsibility of the team is to prepare and conduct data collection within

[1] https://www.guesssurvey.org/publications/publications/academic-journals.html

the country, acting as a national contact point for the project administration team (in the University of St. Gallen, Switzerland), and writing and publishing national reports.

The data collection was a success, with 2,296 responses collected in Belgium. The 2021 GUESSS National Report for Belgium was finished and published in January 2022 (Vanderstraeten et al., 2021). The Belgium national report can be accessed via the GUESSS project's official website.

Participation in the GUESSS project is beneficial to the doctoral programs in several ways. As the area of interest of the GUESSS project is highly compatible with the focus of our doctoral program, the data that we collect for the GUESSS project can effectively serve our research agenda. Therefore, collecting data for the GUESSS project is a suitable alternative to distributing our own questionnaires and collecting data directly. Furthermore, the reputation and support of GUESSS provided our data collection with legitimacy. This helps us in both attracting more student responses and contacting researchers and lecturers who can help us with indirectly distributing the questionnaire to their students. Another benefit of acting as national delegates for the GUESSS project is that when all countries have finished their data collection, we can access the complete international GUESSS data collected in 2021 – a rich international set of primary, individual-level data. This data can be extremely useful, as it allows us to conduct multinational comparisons of entrepreneurship.

3.2. Data for the second essay – Belgian GUESSS data 2021.

For the second essay, we use the GUESSS dataset that we collected in Belgium during the 2021 data collection wave. In total, there are 2,296 responses from thirty universities in Belgium – including universities within both the Dutch-speaking and the French-speaking regions. The universities that significantly contributed to the questionnaire (over 100 responses) are the University of Antwerp, Ghent University, University of Mons, Catholic University of Leuven, University of Namur, and Haute École de Namur-Liège-Luxembourg (Vanderstraeten et al., 2021). This dataset, therefore, can represent students in Belgium at large, rather than students of any specific city or region.

We chose to use only data collected in Belgium rather than the full international dataset because the Belgium dataset is specifically tailored to our research objective. As acting as

the Belgian delegate team for the GUESSS project 2021, we have some control over the content of the questionnaire distributed within Belgium. In particular, apart from distributing the original GUESSS questionnaire, we can add our own questions to it–but this altered version of the questionnaire is distributed in Belgium only.

We added scales related to the topic of entrepreneurial internationalization. This is because while the GUESSS project questionnaire covers the entrepreneurial intention and activities of students, it lacks aspects of internationalization. The scales that we added are:

- A nominal scale asking for students' intention to internationalize future entrepreneurial business.
- A multiple choice question asking for students' participation in international-themed activities (both curricular programs and extracurricular activities).
- A question on how many months the student has spent living abroad. All purposes of staying abroad (e.g., studying, working, traveling, etc.) qualify.
- A 5-item scale on Motivational Cultural Intelligence (Ang and Van Dyne, 2008).

To serve the research topic of our second essay, we need to further filter the dataset. To restate our explanation of the research question of the second essay, we are specifically interested in international entrepreneurial intention (IEI), which stands for the intention to internationalize the future business of students who have yet to run a business. Based on this research question, we will only examine students who fulfil two criteria: (1) they are not currently entrepreneurs (which means active and nascent entrepreneurs are excluded), and (2) they have intention to found a business in the future. The visualization of data filtering is displayed in Figure 2.3. We come to a final database of 473 responses, of which the descriptive statistics are displayed in Table 2.4 and Table 2.5.

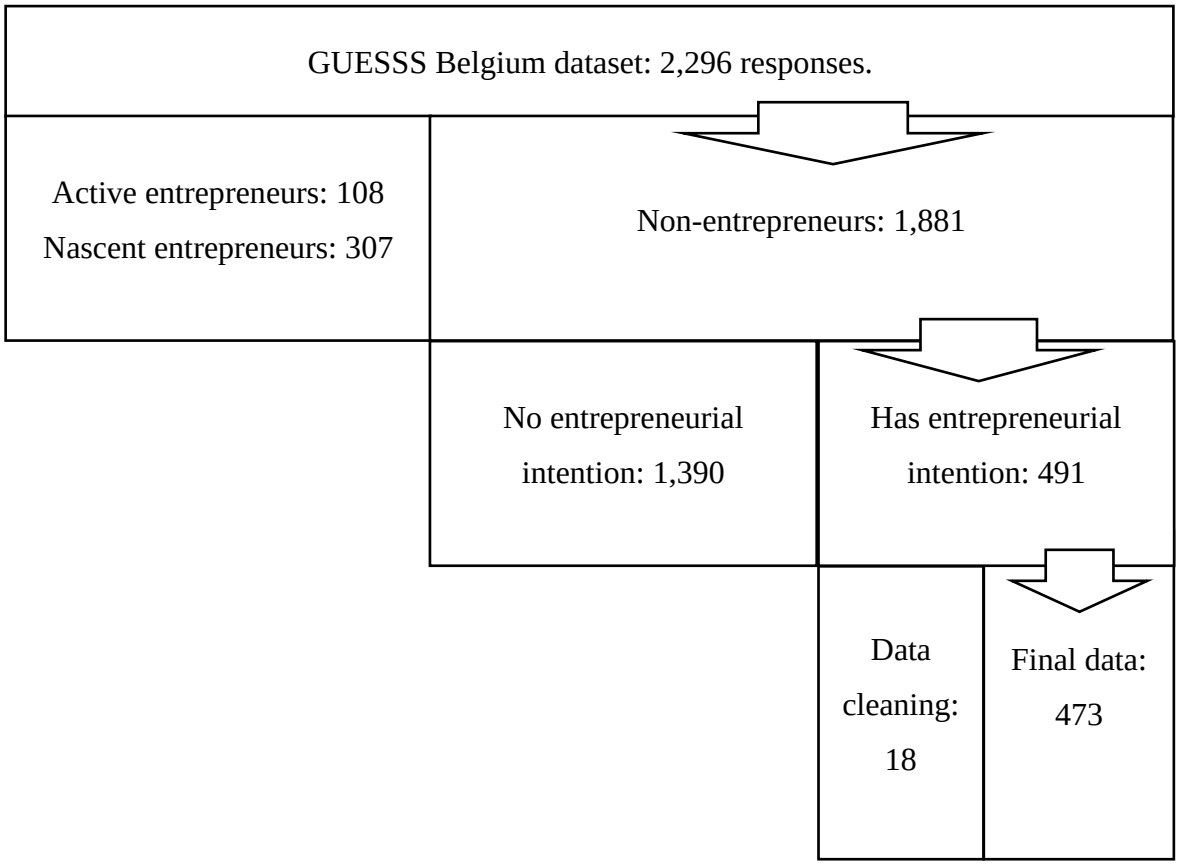
We recognize that there are certain limitations to our dataset. Although our data can represent students in Belgium at large, the specific socioeconomic status of Belgium may affect the generalizability of the data, as well as the analytical results that stem from the dataset. For example, Belgium is a small country, which implies a small domestic market, which is a drive for internationalization (Sieger et al., 2016). Furthermore, Belgium is a member of numerous international communities – namely the European Union (EU), the European Economic Area (EEA), or more specifically, the Benelux (Belgium, Netherlands,

Luxemburg) politico-economic union. These conditions, which can significantly mitigate the difficulties when entrepreneurial businesses try to go abroad, are not available to all countries, and the view on internationalization may differ between Belgium and countries with fewer international connections. The student dataset also implies certain biases. Students have certain specific characteristics that are not applicable to the adult population, such as limited resources, experience, and network, but high adaptability to new technologies and trends (Morris et al., 2017).

3.3. Data for the third essay – International GUESSS data 2016

The third essay contributes to the comparative international entrepreneurship stream of literature. To sufficiently tackle the research question of this essay, we utilize the full international, primary dataset of the GUESSS project, as well as using secondary data from Global Entrepreneurship Monitor to address certain country-level factors.

Figure 2.3: Data filtering for the second essay.



Regarding the GUESSS international dataset, as the dataset from the 2021 data collection wave was not available during the development of the third essay, we collaborated with Professor Vincent Molly (KU Leuven), who was the Belgian delegate for the GUESSS 2016 data collection wave, to access the international database from GUESSS 2016. This is a rich database of over 122,000 responses from 50 countries.

Table 2.4: Demographic statistics of the dataset used in the second essay.

Variables		Number of students (N = 473)
Gender		
	Male	241
	Female	232
Age		
	18-23	388
	Older than 23	68
	Unanswered	17
Year of enrolment		
	2020 (first-year student)	144
	2019 (second-year student)	104
	2018 (third-year student)	137
	2017(forth-year student)	48
	2016 (fifth-year student)	25
	Before 2016	12
	Unanswered	3

Table 2.5: Descriptive statistics of the dataset used in the second essay.

Variable	Mean	SD
Motivational cultural intelligence	5.51	1.07
International experience	4.13	9.00
International knowledge	1.17	1.47
International Entrepreneurial Intention	0.81	0.39

Similar to the GUESSS questionnaire used in the 2021 data collection wave, the 2016 edition of the questionnaire also categorize students into 3 groups: students who are currently running a business (active entrepreneur), students who are in the process of founding a business (nascent entrepreneurs), or students that are not identified by either category (non-entrepreneurs). As our topic of interest is comparing entrepreneurial activities, we only include active entrepreneurs and non-entrepreneurs in our analyses and create a dichotomous variable of "entrepreneurial activity" based on this categorization. The group of nascent entrepreneurs is, therefore, excluded from our analyses.

The reason for excluding the nascent entrepreneur is that the characteristic of this category is very murky. There are ten steps of the business foundation process, ranging from *"Discussed product or business idea with potential customers"* to *"Sold product or service."* Students can identify themselves as a nascent entrepreneur, regardless of which step of the business founding process they are on. This creates a group so heterogeneous and complex that it should be examined separately (e.g., Gimenez-Jimenez et al., 2020).

Although GUESSS provides rich, international datasets, they only cover the individual-level elements of entrepreneurial behaviour. As we aim to examine how entrepreneurial activities vary across countries, we need to include country-level variables as well. We chose the Global Entrepreneurship Monitor project (GEM) as a reputable source of secondary data (Bosma et al., 2021). GEM is an international project initiated by London Business School and Babson College in 1997. Every year, GEM conducts data collection on a global scale to

monitor not only the entrepreneurial activities of many countries but also the national context that either nurtures or hinders entrepreneurship.

To holistically cover both the bottom-up and top-down viewpoints of the country's entrepreneurial institutions, GEM collects its data from two main sources. First is the Adult Population Survey (APS), which collects data at the individual level and aggregates it to country-level indices. Second is the National Expert Survey (NES), which collects opinions of entrepreneurship experts on the entrepreneurial environment within each country. This diversity in terms of viewpoints provided us the opportunity to choose the factors that are the most compatible with our theories and arguments. We fully made use of this advantage and utilized a combination of factors from the APS and NES databases appropriately.

The downside of utilizing both the international database from the GUESSS project and the secondary data from GEM is that not all countries that participated in the GUESSS data collection wave are included in the GEM report. In particular, among the fifty countries that contributed to the GUESSS database in 2016, only thirty-nine countries were also included in the GEM global report 2015-2016.

The final dataset that we used for the third essay included 107,156 responses from thirty-nine countries. The demographic statistic of this dataset is displayed in Table 2.6 and 2.7.

4. Methods and tools of analysis

Choosing the appropriate method is an important step toward achieving accurate results from the analyses. Since each essay applies different conceptual models, there are various methods and tools of analysis involved in this dissertation.

The first essay applies the Partial Least Square method, via the usage of the Smart-PLS software (Ringle et al., 2015). The choice of using PLS comes from the characteristic of personal values following the model (Schwartz, 2003), which are the independent variables of the essay. This model proposes that there are ten basic human values, with two attributes: (1) the values are grouped into four higher-level values, and (2) the values (both the basic values and higher-level values) are distributed on a two-dimensional circumplex model, instead of being orthogonal. PLS is highly compatible with these attributes. Not only does PLS allow for the construction and validation of higher-level values, but it also avoids issues

related to multicollinearity (Cramer, 1993). Following standard practices, the significant level of the model is calculated using 5,000 iterations of bootstrapping.

Table 2.6: Demographic information of the third essay dataset

Gender	
Male	44,602
Female	62,554
Study level	
Bachelor	86,715
Master	15,517
Other (MBA, PhD…)	4,553
No answer	371
Study domain	
Arts / Humanities (e.g., linguistics, cultural studies, religion, philosophy, history)	7,758
Engineering (incl. computer sciences and architecture)	28,013
Human medicine / health sciences	9,154
Law & Economics (incl. business sciences)	34,798
Mathematics and natural sciences	5,053
Science of art (e.g., art, design, dramatics, music)	1,891
Social sciences (e.g., psychology, politics, educational science)	9,530
Other	10,803
No answer	156

The models in the second and third essays of this dissertation were fitted using R software (R Core Team, 2020). The strength of R is its versatility. R is an open-source software, which

allows academic programmers to contribute to the software, creating functions and packages to adapt to the new demands of academic research. Thanks to the versatility, R users can be used for models of different theories, types, and complications, which normally would require different software to measure accurately.

In particular, as the second essay of this dissertation concerns the mediation of motivation cultural intelligence (MCQ), an ordinary regression model is insufficient. We therefore run Structural Equation Modelling (SEM), which allows us to put MCQ between international knowledge, international experience and international entrepreneurial intention (IEI) in our conceptual model, and test both the direct and indirect effects of all factors simultaneously. In practice, we utilized the "sem()" function from the "lavaan" package (Rosseel, 2012). Following recommended procedures, we calculate the significant levels of parameters by carrying out 5,000 bootstrap samples (Zhao et al., 2010).

Our third essay is a comparative international analysis, with variables on both individual- and country levels. On top of that, the dependent variable is a dichotomous status (whether the participant is an entrepreneur or not). In order to take into account all of these complexities, we designed a multilevel logistic regression model. First, the "multilevel" aspect of the model deals with the fact that we have variables on an individual level (namely Perceived power distance) and country level (Country institutional profile). The "logistic" aspect of the model reflects the dichotomous nature of the dependent variable, and how the coefficients are calculated based on odd-ratio rather than linear effects. The coefficients and significant levels of the model were calculated using the package glmmTMB (Brooks et al., 2017).

Table 2.7: Distribution of participants across countries

Country	Sample size	Percentage	Country	Sample size	Percentage
Argentina	2,514	2.35%	Japan	1,432	1.34%
Australia	2,109	1.97%	Kazakhstan	227	0.21%
Belgium	692	0.65%	Korea	2,408	2.25%
Brazil	7,114	6.64%	Macedonia	116	0.11%
Canada	285	0.27%	Malaysia	126	0.12%
Chile	5,829	5.44%	Mexico	1,153	1.08%
China	2,456	2.29%	Morocco	1,628	1.52%
Colombia	3,633	3.39%	Panama	3,069	2.86%
Croatia	1,483	1.38%	Peru	1,221	1.14%
Ecuador	7,788	7.27%	Poland	6,088	5.68%
El Salvador	4,162	3.88%	Portugal	4,036	3.77%
England	975	0.91%	Russia	3,931	3.67%
Estonia	763	0.71%	Slovakia	3,095	2.89%
Finland	488	0.46%	Slovenia	499	0.47%
France	467	0.44%	Spain	6,857	6.40%
Germany	15,438	14.41%	Sweden	566	0.53%
Greece	602	0.56%	Switzerland	2,758	2.57%
Hungary	5,030	4.69%	Uruguay	1,338	1.25%
Ireland	745	0.70%	United States	321	0.30%
Italy	3,714	3.47%	**Total**	**107,156**	**100.00%**

Table 2.8: Overview of theories, models and tools in the dissertation

		Theories and concepts		Data	Models	Tools
		Individual	Contextual			
Cross-border entrepreneurship – International entrepreneurial intention	Essay 1	Personal values theory (Schwartz, 2003)	Entrepreneurial knowledge Entrepreneurial role model	Indonesia data 2019 (N = 410)	Partial Least Square – Structural Equation Modelling (PLS – SEM)	Smart-PLS software (Ringle et al., 2015)
	Essay 2	Cultural intelligence theory (Ang and Van Dyne, 2008)	International knowledge International experience	GUESSS 2021 – Belgian data (N = 473)	Mediating model – Structural Equation Modelling & Bootstrapping	R software (R Core Team, 2020)
Cross-national comparison of entrepreneurial behaviour	Essay 3	Perceived power distance – national culture theory (Hofstede, 2001; House et al., 2004)	Country institutional Profile – Institutional theory (Busenitz et al., 2000; Scott, 1995)	GUESSS 2016 Global data. GEM 2015 – 2016 (N = 107,156)	Multilevel modelling	R software (R Core Team, 2020)

References

Abessolo, M., Rossier, J., and Hirschi, A. (2017). Basic values, career orientations, and career anchors: Empirical investigation of relationships. Frontiers in Psychology, 8(1556). https://doi.org/10.3389/fpsyg.2017.01556

Ang, S., and Van Dyne, L. (2008). Handbook of cultural intelligence: theory, measurement, and applications. In Choice Reviews Online.

Bhasin, B. B., and Venkataramany, S. (2010). Globalization Of Entrepreneurship: Policy Considerations For SME Development In Indonesia. International Business & Economics Research Journal (IBER), 9(4), 95–104. https://doi.org/10.19030/iber.v9i4.557

Bosma, N., Hill, S., Ionescu-Somers, A., Kelley, D., Guerrero, M., and Schott, T. (2021). GEM 2020/2021 Global Report.

Brooks, M. E., Kristensen, K., van Benthem, K. J., Magnusson, A., Berg, C. W., Nielsen, A., Skaug, H. J., Mächler, M., and Bolker, B. M. (2017). glmmTMB balances speed and flexibility among packages for zero-inflated generalized linear mixed modeling. R Journal, 9(2), 378–400. https://doi.org/10.32614/rj-2017-066

Cramer, R. D. (1993). Partial Least Squares (PLS): Its strengths and limitations. Perspectives in Drug Discovery and Design, 1(2), 269–278.

Gimenez-Jimenez, D., Edelman, L. F., Dawson, A., and Calabrò, A. (2020). Women entrepreneurs' progress in the venturing process: the impact of risk aversion and culture. Small Business Economics. https://doi.org/10.1007/s11187-020-00435-8

Handrito, R. (2021). Essays on Explicit and Implicit Motives, Entrepreneurial Orientation, and Behaviour. https://biblio.ugent.be/publication/8689155/file/8689156

Marsh, H. W., and Hau, K. T. (2003). Big-Fish-Little-Pond Effect on Academic Self-concept: A Cross-Cultural (26-Country) Test of the Negative Effects of Academically Selective Schools. American Psychologist, 58(5), 364–376. https://doi.org/10.1037/0003-066X.58.5.364

Morris, M. H., Shirokova, G., and Tsukanova, T. (2017). Student entrepreneurship and the university ecosystem: A multi-country empirical exploration. European Journal of International Management, 11(1), 65–85. https://doi.org/10.1504/EJIM.2017.081251

Peterman, N. E., and Kennedy, J. (2003). Enterprise Education: Influencing Students' Perceptions of Entrepreneurship. Entrepreneurship Theory and Practice, 28(2), 129–144. https://doi.org/10.1046/j.1540-6520.2003.00035.x

Pittaway, L., and Cope, J. (2007). Entrepreneurship education: A systematic review of the evidence. International Small Business Journal, 25(5), 479–510. https://doi.org/10.1177/0266242607080656

Politis, D., Winborg, J., and Dahlstrand, Å. L. (2012). Exploring the resource logic of student entrepreneurs. International Small Business Journal, 30(6), 659–683. https://doi.org/10.1177/0266242610383445

Pruett, M., Shinnar, R., Toney, B., Carolina, N., Llopis, F., and Fox, J. (2009). Explaining entrepreneurial intentions of university students : a cross-cultural study. International Journal of Entrepreneurial Behaviour & Research, 571–594.

R Core Team. (2020). R: A language and environment for statistical computing. (https://www.R-project.org/). R Foundation for Statistical Computing, Vienna, Austria.

Ringle, C. M., Wende, S., and Becker, J.-M. (2015). SmartPLS 3. Bönningstedt: SmartPLS. Retrieved from http://www.smartpls.com.

Robins, R. W., Noftle, E. E., Trzesniewski, K. H., and Roberts, B. W. (2005). Do People Know How Their Personality Has Changed ? Correlates of Perceived and Actual Personality Change in Young Adulthood. Journal of Personality, 73(2), 489–522. https://doi.org/10.1111/j.1467-6494.2005.00317.x

Rosseel, Y. (2012). lavaan: An R Package for Structural Equation Modeling. JournalofStatisticalSoftware, 48(2), 1–36.
Schwartz, S. H. (2003). A Proposal for Measuring Value Orientations across Nations. Questionnaire Package of the European Social Survey, 259(290), 261.
Shinnar, R., Pruett, M., and Toney, B. (2009). Entrepreneurship Education : Attitudes Across Entrepreneurship Education : Attitudes Across Campus. Journal of Education for Business, 84(3), 151–159.
Sieger, P., Fueglistaller, U., and Zellweger, T. (2016). Student Entrepreneurship 2016: Insights From 50 Countries. In St.Gallen/Bern: KMU-HSG/IMU.
Sieger, P., Raemy, L., Zellweger, T., Fueglistaller, U., and Hatak, I. (2021). (GUESSS) Global Student Entrepreneurship 2021: Insights From 58 Countries 2021 GUESSS Global Report. 1–28. http://www.guesssurvey.org/resources/PDF_InterReports/GUESSS_Global_2018.pdf
Solesvik, M. Z. (2013). Entrepreneurial motivations and intentions: Investigating the role of education major. Education and Training, 55(3), 253–271. https://doi.org/10.1108/00400911311309314
Tambunan, T. (2007). Entrepreneurship Development: Smes in Indonesia. Journal of Developmental Entrepreneurship, 12(01), 95–118. https://doi.org/10.1142/s1084946707000575
Tambunan, T. (2008). SME development, economic growth, and government intervention in a developing country: The Indonesian story. Journal of International Entrepreneurship, 6(4), 147–167. https://doi.org/10.1007/s10843-008-0025-7
Thompson, E. R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. Entrepreneurship: Theory and Practice, 33(3), 669–695. https://doi.org/10.1111/j.1540-6520.2009.00321.x
Vanderstraeten, J., Slabbinck, H., Phan, T. T., and Ooms, F. (2021). Global University Entrepreneurial Spirit Students Survey - 2021 Belgium National Report. https://www.guesssurvey.org/resources/nat_2021/GUESSS_Report_2021_Belgium.pdf
Zhao, X., Lynch, J. G., and Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. Journal of Consumer Research, 37(2), 197–206. https://doi.org/10.1086/651257

Chapter 3: Unravelling the impact of personal values, role models and entrepreneurial knowledge on international entrepreneurial intention

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Abstract

Despite the economic relevance of international entrepreneurial activities and an extensive body of knowledge on internationalization after business foundation, knowledge on international entrepreneurial intention (IEI) in the pre-foundation phase is limited. In this paper, we address this, by taking into account both "the person" expressing the intention to immediately internationalize at future business foundation, as well as the people and knowledge surrounding that person. We focus on–at the individual level–personal values, and–at the environmental level–entrepreneurial role models and entrepreneurial knowledge. We use a dataset of 410 Indonesian students. First, students are in a pre-business foundation period, and surrounding agencies such as universities can have an important impact on career choices and intentions. Second, we would want to tackle how entrepreneurship in developing countries such as Indonesia is localized with low intention of growth and internationalization. Our results reveal that self-enhancement is significantly related to IEI, and that entrepreneurial education is positively connected to IEI, regardless of personal values. Entrepreneurial role models positively moderate the impact of conservation values. This paper supports the necessity to not only understand the impact of personal values on the intention to internationalize entrepreneurial business but also recognize the inert nature of personal values and formulate appropriate conditions to maximize the positive impact of personal values on IEI.

Keywords: International entrepreneurial intention; Personal values; Knowledge; Role model

1. Introduction

With the increasing globalization of markets, stimulating internationalization has a prominent place on the agenda of many researchers and policymakers (e.g., Prashantham et al., 2018). This is not surprising, as international entrepreneurial activities allow access to foreign technologies, enhance a nation's technological level (González-Pernía and Peña-Legazkue, 2015; Kneller and Pisu, 2007; Yeoh, 2004), positively impact regional productivity (López-bazo et al., 2006; Singh et al., 2022) and stimulate economic growth. Internationalizing entrepreneurs, for example, have played a crucial role in facilitating economic growth in emerging economies (Casado-Belmonte et al., 2020).

Even though our knowledge of the internationalization process of internationalizing SMEs is extensive (Dekel-Dachs *et al.*., 2021; Ipsmiller & Dikova, 2021), this is less the case for the *pre-foundation* phase. Better understanding the underlying factors and influencers of international entrepreneurial intention (IEI) of individuals who have yet to create a business, however, has high economic potential (Jie & Harms, 2017; Ruzzier *et al.*., 2020). Also from a research perspective, a fine-grained analysis focusing on the peculiarities of IEI–and thus not relying on our knowledge of general (or domestic) entrepreneurial intention (EI)–is welcome (Jie and Harms, 2017). Indeed, as also internationalization determinants differ from those stimulating domestic entrepreneurial activities, are IEI and EI influenced by a different set of characteristics and challenges. IEI, for example, is more strongly influenced by the liability of foreignness and international opportunity recognition than its domestic counterpart (Evers & O'Gorman, 2011; Zahra *et al.*., 2005).

To unravel the influencers of IEI, we follow studies showing that peoples' personal values are important antecedents of their intentions (and subsequent behaviour). This has been established in business and management (e.g., Egri & Herman, 2000; Fritzsche & Oz, 2007), as well as in entrepreneurship (Hueso, Jaén, and Liñán, 2020). Even though studies on personal values do recognize the importance of taking into account the peculiarities of different types of EI, they tend to focus on general (domestic) and social entrepreneurial

intention (Hueso, Jaén, and Liñán, 2020; Liñán and Fayolle, 2015). Those that do focus on IEI tend to examine the internationalization of established firms (e.g., Bolzani & Foo, 2018; Forcadell & Úbeda, 2020; Vahlne & Johanson, 2020) and seem to put aside the peculiarities of the *pre-foundation* phase. In the current paper, we address this.

Second, complicated phenomena such as IEI are not only determined by the person's values. In particular, young people are influenced by role models and knowledge provision. Entrepreneurial role models act as highly influential successful examples (Bosma *et al..*, 2012), and are a source of skills, inspirations and motivations for future career choices (e.g., Van Auken et al., 2006). Knowledge mitigates barriers to future career choices (e.g., Pittaway & Cope, 2007; Wang & Wong, 2004), while–in the case of IEI–allowing people to more easily detect international entrepreneurial opportunities (Oviatt and Mcdougall, 2005). Knowledge also enhances a person's confidence and self-efficacy (Peterman and Kennedy, 2003), which are both characteristics important for risky career choices such as IEI (Prashantham and Floyd, 2019; Wasowska, 2019).

In sum, we examine the following research questions: (1) *"Do personal values impact IEI, and if so, which personal values do so?"* and (2) *"How do the contextual effects "entrepreneurial role models" and "entrepreneurial knowledge" moderate the aforementioned impact of personal values on IEI?"*

We specifically choose a student population to examine these research questions, for two reasons. First, personal values have a significant effect on undergraduate students' general EI (Watchravesringkan *et al..*, 2013; Yang *et al..*, 2015), but–despite the anticipated impact on other types of EI–their impact on IEI is still unclear. Second, students are in a "transitional phase." They are in a period of their life when they consider their opportunities and career choices for their future life (Pruett *et al..*, 2009; Shinnar *et al..*, 2009). Their intentions are highly susceptible to external factors and adjustments and contextual variables may call more strongly upon their decisions (Marsh & Hau, 2003; Robins *et al..*, 2005). This allows governments' and educational institutions' stimulating measures to effectively promote IEI and thus create an impact on society at large. This naturally feeds into our choice for a study in an emerging country: Indonesia. Given that internationalization allows local businesses to have, e.g., access to knowledge, enhance a nation's technological level and positively

impact regional productivity (see supra), executing a study on IEI in an emerging country is expected to contribute to insights on this emerging country's economic development.

With this paper, we provide two overarching contributions. First, we expand the relatively underdeveloped research domain of IEI by applying the concept of personal values (Fayolle et al., 2014; Hueso, Jaén, and Liñán, 2020; Liñán and Fayolle, 2015). We build upon the previous calls for studies on the relationship between values and intention (Fayolle et al., 2014), and the recognized role of personal values in entrepreneurship and internationalization studies (Bolzani and Foo, 2018; Hueso, Jaén, and Liñán, 2020). These ideas are bolstered by our paper, as our results show a significant role of personal values in predicting IEI. Furthermore, by controlling for the variation of entrepreneurial intention (EI) in our model, we highlight the differentiation between IEI and (generic) EI and consequently bolster the positioning of IEI as a separate, independent research topic.

Second, we provide suggestions for practical implications regarding personal values. While personal values are recognized as stable personality traits (Bardi et al., 2009), research on the relationship between personal values and intention in the entrepreneurship domain largely overlooks this characteristic of values (Hueso, Jaén, and Liñán, 2020). This causes difficulties in formulating practical suggestions. For example, even when knowing which personal values are more desirable, efforts to shift the stable values can be fruitless efforts. Our paper addresses this gap by highlighting how certain moderating factors, such as entrepreneurial education and role models, can adjust the relationship between values and intention. Based on this knowledge, policymakers can create beneficial environments in which desirable values can be fully capitalized, while the negative impacts of obstructing values can be mitigated.

Finally, we expand the understanding of international entrepreneurial intention to Indonesia, a developing country. While Schwartz's model of personal values is applicable to populations worldwide (Schwartz et al., 2001), studies on personal values and intention in the entrepreneurship domain are mainly limited to Western, developed societies (Bolzani and Foo, 2018; Hueso, Jaén, and Liñán, 2020). The insight that our paper provides, therefore, would be a valuable addition to the effort to stimulate development in emerging economies such as Indonesia.

2. Literature review and hypotheses development

2.1. International entrepreneurial intention and personal values

International entrepreneurship has become a relevant phenomenon in the quickly globalizing world. Thanks to recent rapid advancements in information technology, more attention and capital are being spent on internationalization (Joensuu-Salo et al., 2018; Knight and Cavusgil, 2004; Moen and Servais, 2002; Oviatt and Mcdougall, 2005). International entrepreneurial activities give companies and nations access to foreign technologies, know-how, and resources (González-Pernía and Peña-Legazkue, 2015; Kneller and Pisu, 2007; Yeoh, 2004) and, in addition, may create beneficial entrepreneurial spill-over effects (Kneller and Pisu, 2007; Yeoh, 2004). As a result, international entrepreneurship has a strong positive influence on the economic growth and competitive position of a nation.

The increasing relevance of international entrepreneurship, the peculiarities of internationalization, compared to domestic entrepreneurial activities (Oviatt & Mcdougall, 2005; Zahra *et al.*., 2005), combined with the importance of EI as the most important predictor of actual entrepreneurial behaviour (Ajzen, 1991; Bird, 1988; Krueger et al., 2000), raises the necessity to expand our understanding of the EI to *international* EI. Or, in other words, the intention to internationalize a company at business foundation. A literature review by Liñán and Fayolle (2015) indicates that research on EI mainly focuses on traditional EI, and the few studies that do focus on a specific type of EI unravel the peculiarities of social EI (Hueso, Jaén, and Liñán, 2020; Liñán and Fayolle, 2015). The literature on IEI is thus–to the best of our knowledge–very limited, despite the distinctive nature of international entrepreneurship vis-à-vis traditional entrepreneurship (Mcdougall *et al.*., 2003; Zahra *et al.*., 2005). In this paper, we address this.

Due to the small scale of entrepreneurial start-ups, we follow researchers arguing that the personality of the entrepreneur directly affects the creation and orientation of such businesses (Handrito et al., 2020).–Among aspects of personality, personal values are recognized as an important predictor of intentions and career choice in various fields–including managerial and organizational research (Abessolo *et al.*., 2017; Knafo & Sagiv, 2004). Personal values are individual beliefs that guide the selection and evaluation of behaviours and events in everyday situations (Schwartz and Bilsky, 1987). Values give

people motivation and priority on a daily basis, as well as in committing and pursuing larger accomplishments (Schwartz, 2003). To illustrate, in choosing a career and job orientation, people choose careers and occupations that align with their values (Knafo and Sagiv, 2004), or lean toward career opportunities that are close to their personal values when multiple options are offered (Abessolo *et al.*., 2017). For example, a recent paper by Hueso *et al.*. (2020) provide empirical evidence of a significant connection between personal values and students' EI.

Despite being recognized as a crucial factor in entrepreneurs' decision-making in their businesses, research on the relationship between personal values and *international* EI is rather limited (Hueso, Jaén, and Liñán, 2020; Liñán and Fayolle, 2015). Furthermore, the limited number of studies that explore this relationship focus on the internationalization of established firms (e.g., Bolzani and Foo 2018). Thus, to the best of our knowledge and despite its relevance for actual internationalization, studies on the relationship between personal values and IEI are, at best, scarce. To fill this gap in the literature, we suggest a connection between individuals' personal values and their view on international entrepreneurship in general, and their development of IEI before business creation specifically.

One of the most widely applied models of personal values is the circumplex model of Schwartz (Schwartz, 1992), depicted in Figure 3.1. Schwartz (2003, 279) defines values as "*affect laden beliefs that refer to a person's desirable goals and guide the selection or evaluation of actions, policies, people and events*". Schwartz and his colleagues created and refined a circular value model that consists of ten values: security, power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition and conformity (Bardi and Schwartz, 2003; Schwartz, 1992, 2003; Schwartz and Bardi, 2001; Schwartz and Boehnke, 2004). Each value is associated with a group of behaviours and motivational goal priorities as described in Table 3.1. Values that are close on the spectrum are connected to similar behaviours, and values that are far apart or on the opposite sides of the spectrum are fundamentally different, and are associated with actions that can be conflicting in nature (Schwartz, 2003).

Table 3.1: Schwartz's personal values (Schwartz, 2003)

Definitions of motivational types of values in terms of their goals and the single values that represent them (the representing values are put in parentheses)		
Openness to change	Stimulation	Excitement, novelty, and challenge in life. (daring, a varied life, an exciting life)
	Self-direction	Independent thought and action-choosing, creating, exploring. (creativity, freedom, independent, curious, choosing own goals)
	Hedonism	Pleasure and sensuous gratification for oneself. (pleasure, enjoying life, self-indulgence)
Self-enhancement	Power	Social status and prestige, control or dominance over people and resources. (social power, authority, wealth, preserving my public image)
	Achievement	Personal success through demonstrating competence according to social standards. (successful, capable, ambitious, influential)
Conservation	Tradition	Respect, commitment and acceptance of the customs and ideas that traditional culture or religion provide the self. (humble, accepting my portion in life, devout, respect for tradition, moderate)
	Conformity	Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms. (politeness, obedient, self-discipline, honouring parents and elders)
	Security	Safety, harmony, and stability of society, of relationships, and of self. (family security, national security, social order, clean, reciprocation of favours)
Self-transcendence	Universalism	Understanding, appreciation, tolerance and protection for the welfare of all people and for nature. (broadminded, wisdom, social justice, equality, a world at peace, a world of beauty, unity with nature, protecting the environment)
	Benevolence	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact. (helpful, honest, forgiving, loyal, responsible)

The ten values are grouped into four higher-level values: openness to change, self-enhancement, conservation, and self-transcendence. Self-enhancement and self-transcendence respectively concern gaining benefit for one's self and considering the wellbeing of the surrounding people and objects; openness to change and conservation illustrate exploring and experiencing newness versus staying close to the comfort of traditional, proven and preserved beliefs (Schwartz, 2003). The circular structure of Schwartz's values has been tested in many countries and different cultures. Although different cultures prioritize their values differently, the ten-value model is globally validated (Schwartz and Bardi, 2001).

From a business perspective, people have the tendency to choose vacancies or careers that are compatible with their personality and can offer them rewards that are consistent with what they believe is important (Knafo and Sagiv, 2004). The staple characteristics of international entrepreneurship are proactiveness, willingness to take risks, and innovativeness (Jones *et al.*., 2011; Mcdougall *et al.*., 2003; Zhou, 2007). In particular, even after finding an opportunity in the international market – which requires extensive and proactive exploration (Zahra *et al.*., 2005), international entrepreneurs also have to overcome challenges such as the liability of foreignness (Evers and O'Gorman, 2011), which increases both the cost of founding an international firm and the odd of failure (George *et al.*., 2005). These characteristics demand international entrepreneurs to not only have a high motivation to reach out for new experiences or challenges (Zhou, 2007) but also have a relatively higher tolerance for risk and uncertainty (Oviatt *et al.*., 2004). Therefore, we hypothesize that individuals scoring high on openness to change values, which implies that they have a higher priority for, e.g., exploration, creating, challenges, curiosity and novelty (Schwartz, 2003) will be more likely to develop an intention to commit to international entrepreneurial activities.

Hypothesis 1a: Openness to change is positively related to IEI

As compensation for these challenges, internationally active entrepreneurs expect high potential wealth as the reward (Carter, 2011; Shane *et al.*., 2003). The novel ideas or new products can shape a new trend and create a new market on a global scale and earn higher

potential rewards, especially in comparison to domestically oriented entrepreneurs who only offer new products and ideas to local markets and oftentimes with lower rewards (Jolly *et al.*., 1992). We argue that such higher rewards are especially captivating to individuals with high self-enhancement values, as these values involve seeking control over resources – such as monetary resources – and proving personal competence by reaching higher status compared to the social standard (Schwartz, 2003). Therefore, we hypothesize that individuals who highly value self-enhancement (and who thus seek high monetary rewards) are more likely to develop IEI.

Hypothesis 1b: Self-enhancement is positively related to IEI

Conversely, we expect that people scoring higher on conservation values (including security, conformity and tradition) find that their priorities conflict with the essence of international entrepreneurship. In particular, people who value security prefer stability in their daily lives. Hence, they will divert away from the high-risk levels involved in international entrepreneurship (Hueso, Jaén, Liñán, *et al.*., 2020; Schwartz, 2003) and perceive the international opportunities as threats instead of exploitable resources (Yang *et al.*., 2015). Additionally, the fact that international entrepreneurial activities imply expanding operations beyond the boundaries of the home country is also a deterrent for people scoring high on conservation values, as these people face difficulties in cross-cultural adaptation (Yijälä *et al.*., 2012).

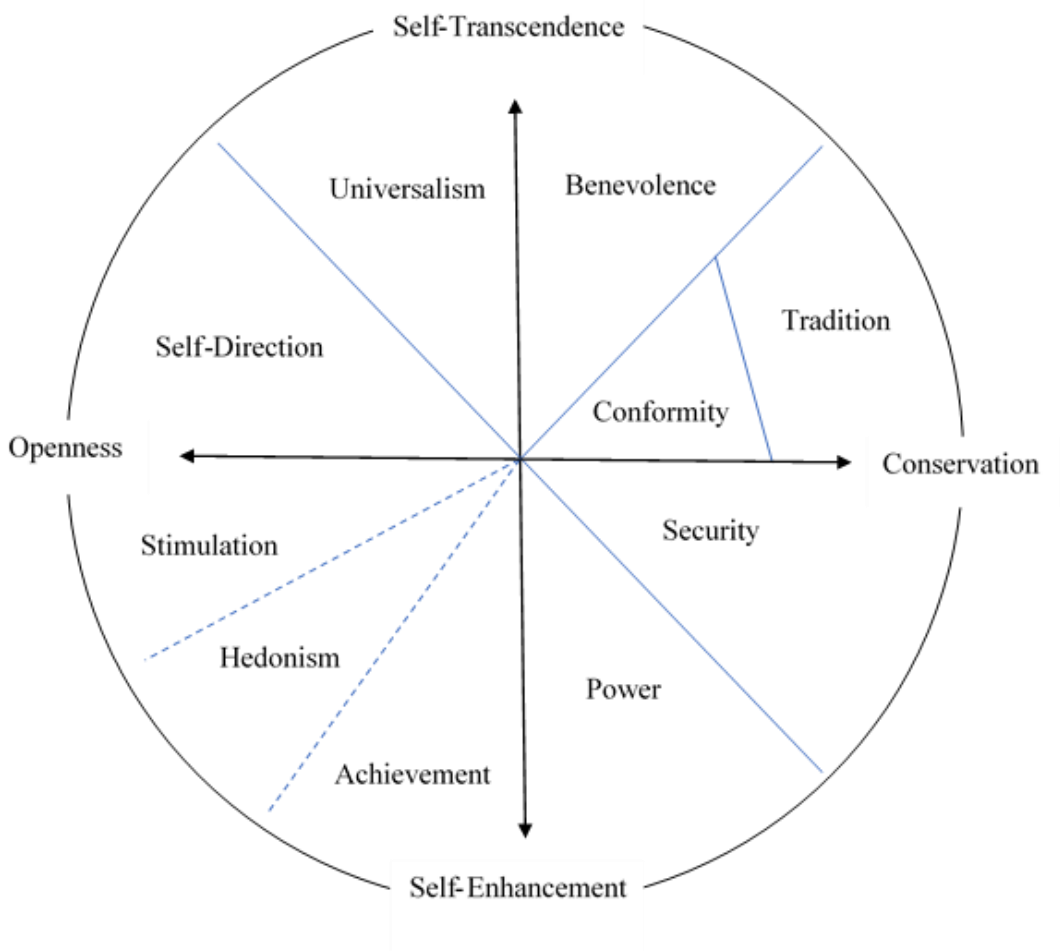
Hypothesis 1c: Conservation is negatively related to IEI

Finally, we turn towards the self-transcendence value, which includes benevolence and universalism. Benevolent individuals are less likely to be interested in taking entrepreneurial risks since there are unavoidable sacrifices in terms of finance or available time that their families have to bear (Jennings and Mcdougald, 2007). For example, researchers have found a negative connection between business trips abroad and family quality (Westman, 2005). Although, as mentioned above, international entrepreneurial activities are expected to highly reward business owners through an increase in wealth and/or a high-power status. Striving for such perks, however, is also considered an egoistic indulgence, as the rewards mainly

focus on individual benefits (Bann, 2009; Shane *et al.*., 2003). This interpretation of international entrepreneurial rewards rivals the values of self-transcendence, which involves taking care of and protecting the welfare of others, either people immediately around them (benevolence) or the society at large (universalism) (Schwartz, 2003). Therefore, we hypothesize:

Hypothesis 1d: Self-transcendence is negatively related to IEI

Figure 3.1: Personal value circumplex model (Schwartz, 2003)



2.2. Moderating effects of knowledge and entrepreneurial role models

In this paper, we do not stop at exploring the impact of personal values on IEI. This is because while it is not a concrete consensus, it is likely that personal values are inert, and it

can be hard to have an external impact to change personal values toward a desirable target (Bardi et al., 2009; Vecchione et al., 2016). We suggest that the more fruitful way to utilize our knowledge of personal values is to design environmental factors that lead personal values to have desirable effects – in our case, a higher level of IEI. In practice, this involves studying the moderating effect of external factors on the relationship between personal values and IEI.

In order to holistically cover external factors, we would want to include both factors that are linked to the individual and one that is linked to the social context. Within the scope of this study, these two concepts are operationalized as entrepreneurial knowledge and entrepreneurial role models as our moderating variables, respectively. These two variables are prominent in entrepreneurial internationalization studies, both as predictors and as moderating variables in entrepreneurship studies (Alayo et al., 2019; Chlosta et al., 2012; Omri and Becuwe, 2014; Wasowska, 2019; Watchravesringkan et al., 2013). For instance, prior research found that entrepreneurial knowledge increases the positive impact of values related to self-actualization and entrepreneurial attitude (Watchravesringkan et al., 2013). Meanwhile, exposure to entrepreneurial role models such as self-employing parents has a positive interaction with openness personality in the decision to become an entrepreneur (Chlosta et al., 2012).

In our case, we hypothesize that students' exposure to entrepreneurial knowledge and role models moderate how their personal values impact IEI. The following paragraphs will go over how each contextual factor interacts with each facet of personal values.

2.2.1. Entrepreneurial knowledge

Lack of knowledge about entrepreneurial activities in general, and internationalization strategies in particular, are entry barriers to establishing an international business (Oviatt and McDougall, 2005). Entrepreneurs indeed need sufficient knowledge to design appropriate strategies to internationalize, even in the situation of limited resources, as is commonly the case in the early stages of company development (Cavusgil and Knight, 2015; Oviatt and Mcdougall, 2005). Knowledge of entrepreneurship and internationalization has a positive impact on EI, as it enables entrepreneurs to discover international opportunities and creates

sustainable competitive advantage which helps firms to establish and survive in the international market (Evers and O'Gorman, 2011; Oviatt and Mcdougall, 2005).

People who score high on openness to change and self-enhancement are expected to be more interested in international entrepreneurship (as explained in hypotheses 1a and 1b). Given how entrepreneurial knowledge provides confidence, and self-efficacy to recognize international opportunities to create a business (Oviatt and Mcdougall, 2005; Sommer and Haug, 2011), we expect entrepreneurial education will further reinforce this connection and strengthen the intention to found an international entrepreneurial business. Thus, we hypothesize that higher levels of entrepreneurial knowledge will positively moderate the relation between the personal values of openness to change, and self-enhancement respectively, and IEI.

Hypothesis 2a: People scoring high on openness to change values will have a higher score on IEI when they have higher entrepreneurial knowledge

Hypothesis 2b: People scoring high on self-enhancement values will have a higher score on IEI when they have higher entrepreneurial knowledge

In contrast, we expect the interaction between entrepreneurial knowledge and values of conservation to be in the opposite direction. Although entrepreneurial knowledge can be an enabler for international entrepreneurship, being more knowledgeable about entrepreneurial activities also further uncovers that founding and operating a business would require high levels of risk tolerance, innovativeness and proactiveness (Roxas *et al.*., 2008) – which will be even more intense for international entrepreneurial businesses (Mcdougall *et al.*., 2003; Zahra *et al.*., 2005; Zhou, 2007). This will, so we argue, nourish the conflict with conservation values, which involve risk aversion, respecting and following the norm and opting for traditional practices (Schwartz, 2003). We, therefore, argue that entrepreneurial knowledge will strengthen the negative connection between conservation values and IEI.

Hypothesis 2c: People scoring high on conservation values will have a lower score on IEI when they have higher entrepreneurial knowledge

As mentioned above, people scoring high on self-transcendence values often hold the conventional belief that entrepreneurship is associated with egoistic values (Yang *et al.*., 2015). Yet, entrepreneurial knowledge can introduce these individuals to alternative forms of entrepreneurship, e.g., focus on social value creation, the development and wellbeing of the society at large (Santos, 2012), or on more sustainable effects of international entrepreneurship such as knowledge spill over (Acs *et al.*., 2008). These aspects of entrepreneurship are, in contrast with egoistic values, compatible with the values of self-transcendence – which involves the enhancement of the well-being of others (Schwartz, 2003). Therefore, we hypothesize that a higher level of entrepreneurial knowledge will moderate and soften the negative connection between self-transcendence values and IEI.

Hypothesis 2d: People scoring high on self-transcendence values will have a higher score on IEI when they have higher entrepreneurial knowledge

2.2.2. Entrepreneurial role model

Next to knowledge, role models are equally important contextual moderating factors. Literature recognizes that career decisions, including the decision to start a new business, are heavily influenced by successful role models (Bosma et al.., 2012). A role model can be any individual that one can observe, such as parents, peers, lecturers, or speakers (Scherer et al., 1989; Zozimo et al., 2017). Role models provide learning opportunities via observable examples, also called ”referable knowledge” (Bosma et al.., 2012; Erikson, 2003; Zozimo et al.., 2017). They increase someone’s entrepreneurial knowledge base, preparedness (Cope, 2005), and self-efficacy in founding a company (Zozimo et al., 2017). They also act as a source of inspiration and motivation for students who build their interest in entrepreneurship by looking at the positive aspects of their role models’ careers (Van Auken et al.., 2006).

For people who already have a tendency to create an international business thanks to scoring high on openness to change and self-enhancement, looking at successful examples of their entrepreneurial role models will further reinforce their belief in their choice (van Tilburg and Mahadevan, 2020). They can also find imitating successful examples a viable strategy to internationalize in the earliest business stages when their resources and legitimacy are still

lacking (Schwens and Kabst, 2009). Additionally, as their values (openness to change and self-enhancement) are congruent with the personal values of their entrepreneurial role models, they find the role models' messages and lessons more compelling and credible or are more willing to make similar choices with their role models (Kelman, 2006).

Hypothesis 3a: People scoring high on openness to change values will have a higher score on IEI when they have higher exposure to entrepreneurial role models

Hypothesis 3b: People scoring high on self-enhancement values will have a higher score on IEI when they have higher exposure to entrepreneurial role models

Entrepreneurship is considered an innovative, proactive and non-traditional career choice (Oviatt and McDougall, 2000), which is incompatible with the values of conservation – which involve respecting norms, traditions and known practices (Schwartz, 2003). However, when people scoring high in conservation are frequently exposed to entrepreneurial role models, their perception of the career norm can be shifted so that they believe that founding their own business is the norm, or something they are expected to do (Scherer et al.., 1989). Therefore, in the presence of strong entrepreneurial role models, their conservation values will cause them to follow the entrepreneurial norm, or listen to the expectations and suggestions provided by these entrepreneurial role models. We expect this effect to be even stronger in the case of parental entrepreneurial role models, given the close and personal relation between the role model and the adolescent. Therefore, we argue, that entrepreneurial role models decrease the negative expected relation between conservation and IEI, as such stimulating a higher intention to found an international business.

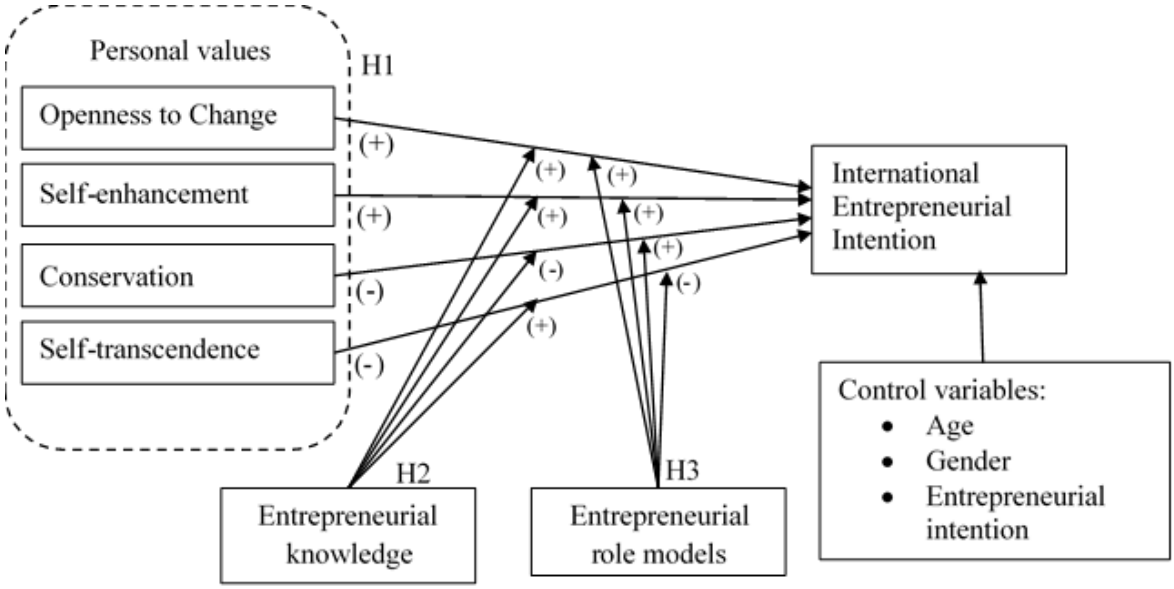
Hypothesis 3c: People scoring high on conservation values will have a higher score on IEI when they have higher exposure to entrepreneurial role models

Conversely, if a person with a high level of self-transcendence has entrepreneurial role models, the incongruence between the person's personal values and the values of the role models will make adopting advice or career choices much more difficult (Kelman, 2006). Additionally, people scoring high on self-transcendence values may find successful

entrepreneurial role models and the realization of egoistic individual goals (Yang et al.., 2015), which contradicts the theme of self-transcendence values (Schwartz, 2003). This contradiction is also apparent in the choices that entrepreneurial role models often have to make, which opportunity costs and sacrifice of people around the entrepreneurs are involved (Bann, 2009; Yang et al.., 2015). The exposure to entrepreneurial role models will, therefore, give countenance to the negative view of people holding self-transcendence values on an entrepreneurial career, and consequently further lower IEI.

Hypothesis 3d: People scoring high on self-transcendence values will have a lower score on IEI when they have higher exposure to entrepreneurial role models

Figure 3.2: Conceptual model of the first essay



3. Method

3.1. Data gathering

The data used for this research was collected from bachelor students of Universitas Brawijaya, Indonesia. Indonesia is an interesting case for entrepreneurship in emerging countries, as SMEs account for 90% of firms outside the agriculture sector and more than 50% of the GDP. These statistics are comparable to the importance of SMEs in most other

emerging countries, according to the World Bank[2]. Most SMEs in Indonesia are micro enterprises (MIE), which only consist of its owner and are not financially sustainable in the long term (Bhasin and Venkataramany, 2010; Tambunan, 2007, 2008). These businesses are often unaware of the necessity to expand their knowledge of business and management and are limited to serving the local market, which restricts their profitability and growth (Tambunan 2007, 2008). Shifting toward more international businesses is therefore expected to have a large positive impact on the growth and survival of Indonesian micro-enterprises and the economic development of this country (Bruton *et al.*., 2008). Expanding the knowledge of international entrepreneurship in Indonesia, as well as in emerging countries in general, may bring tremendous benefits to the wellbeing and development of these countries (Bhasin and Venkataramany, 2010; Tambunan, 2007, 2008). Students were invited to voluntarily participate in the data collection, either via online recruitment (social media, email, etc.) or as an integrated part of short-term study courses. To promote participation, each student was monetarily rewarded an e-money token for exchange, each with a value of Rp. 10,000 (0.80 euros) and a chance to win five lucky draws, each with a value of Rp. 200,000 (15 euros). In total, 427 responses were collected. Excluding seventeen responses that were incomplete or contained patterned answers, 410 observations were used for analysis. The data collection was conducted in November 2019. Students' ages ranged from 17 to 30 years old.

3.2. Measures

International entrepreneurial intention

Due to the nascent nature of IEI, there are no validated scales readily available to assess this concept. Thus, we adopted and modified three questions used in the Individual Entrepreneurial Intention Survey (IEIS) questionnaire of Thompson (2009) to make them

[2] Small and Medium Enterprises (SMEs) Finance – world Bank. Retrieved 30/09/2020 https://www.worldbank.org/en/topic/smefinance

suitable for the context of IEI. We did so via an iterative process, using expert insights from three researchers in the field. Adopting and modifying existing scales proved its relevance in previous studies (for example: Jie & Harms, 2017), and, given that we used expert insights, the content of the scale fits the purpose of our research. We asked the students how much they "*Intend to start an international company in the future*", "*Look for start-up opportunities that are foreign or international*" and "*Spend time on reading/learning about how to start an international firm*." As these questions have been adapted from Thompson's (2009) scale, which has been validated across various cultures, it is not surprising that our scale validation yields a good internal reliability score, with a composite reliability score of 0.914 ($p < .001$). This exceeds the recommended .70 threshold (Hair *et al.*., 2011).

Personal values

To measure personal values, we use the Portrait Value Questionnaire (PVQ-40) developed by Schwartz (2003). This scale consists of forty items, measured on a 5-point Likert Scale, asking survey participants to answer how they relate themselves to people described by sentences such as "*It is very important to him to help the people around him. He wants to care for other people*" and "*Thinking up new ideas and being creative is important to him. He likes to do things in his own original way*". This scale is considered an improved version of Schwartz's Value Survey (SVS); it is shorter and more intuitive to use while still preserving the desired effectiveness of the SVS in measuring values (Schwartz, 2003). The PVQ scale has been applied in many fields with various conditions (including emerging countries) with consistent reliability (for example: Różycka-Tran *et al.*., 2017; Schwartz, 2003; Vecchione *et al.*., 2015). The composite reliability scores of the latent variables of the personal values are .821 for openness to change, .840 for self-enhancement, .834 for conservation, and .836 for self-transcendence, which indicate good internal reliability (Hair *et al*., 2011).

To validate the circumplex spectrum of personal values, we used Multidimensional scaling (MDS) and displayed the items of the PVQ on a two-dimensional plane, as displayed in Figure 3.3. Each point represents one item, and the distance between the points represents the similarity between items, calculated by Euclidean distance. The division of the values roughly represents the ten values in Schwartz's circular spectrum. There are two

discrepancies compared to the original model: hedonism stands between self-direction and universalism instead of between achievement and stimulation, and there is no clear boundary between tradition and conformity. These two discrepancies are recognized in research by Schwartz and Boehnke (2004), in which the authors accept them as valid modifications.

Entrepreneurial knowledge

To operationalize entrepreneurial knowledge, we use entrepreneurial education as our operational variable. Indeed, university-level entrepreneurship study programs are a prominent source of entrepreneurial knowledge (Martin *et al..*, 2013). Prior studies provide support for the usage of entrepreneurial education as an operationalization of entrepreneurial knowledge (Roxas *et al..*, 2008), as well as the positive effect of entrepreneurial education and entrepreneurial programs on entrepreneurial intention and behaviour (Peterman & Kennedy, 2003; Roxas, 2014; Wang & Wong, 2004).

In our questionnaire, students were required to report their current study program in their university by a multiple-choice question. Based on the curricula of these programs, students were either classified as with (“1”) or without (“0”) entrepreneurial education (Solesvik, 2013). The available options, as well as the number of students attending these programs, are listed in Table 3.3.

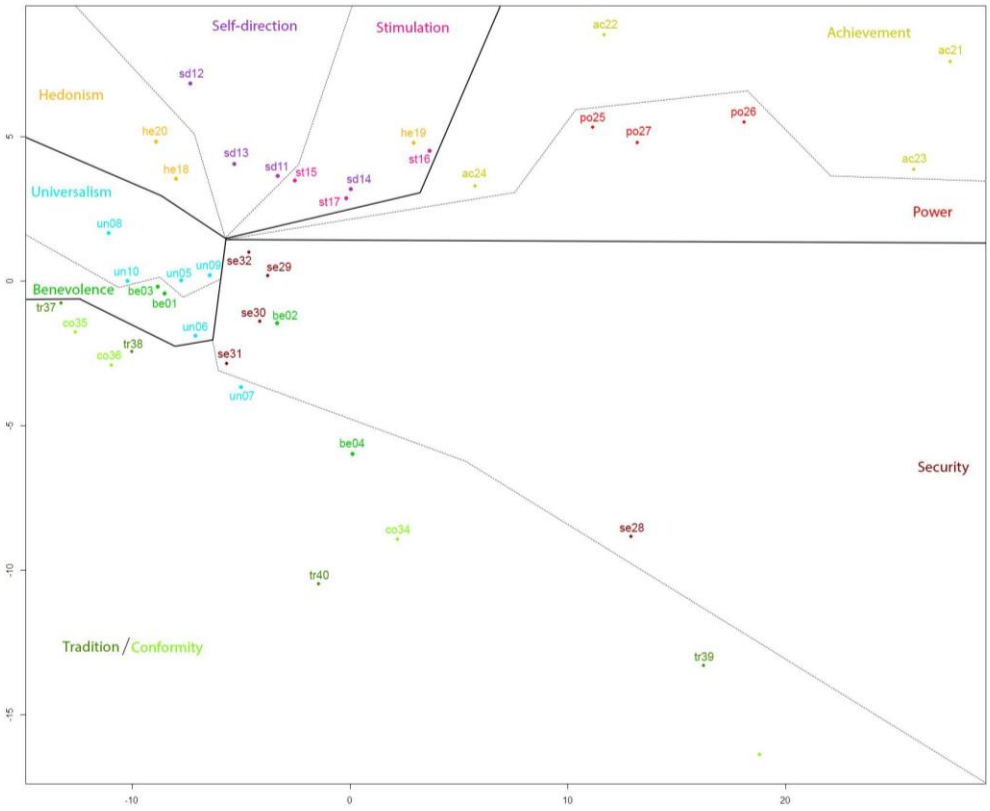
Entrepreneurial role models

Entrepreneurial parents act as an important role model, especially to students. Parental interaction with children influences the growth and career choice of children – including EI (Scherer *et al..*, 1989), via mechanisms such as children observing and learning from the success of their parents, or children receiving biased perspectives from their parents (Bloemen-Bekx et al., 2019; Schmitt-Rodermund, 2004; Schoon and Duckworth, 2012). Children also imitate their parents’ attitudes and expectations toward running a business (Dyer, 1994). Entrepreneurial parents, especially when they have a close relationship with their children, can directly provide social capital, which strongly enhances children’s entrepreneurial competence (Campopiano *et al..*, 2016).

To measure exposure to entrepreneurial role models, we inquired students about their parents’ occupation, by a list of choices as displayed in Table 3.4, with ”entrepreneur” as

one option. This variable is coded to the dichotomous variable ”entrepreneurial parents”, which has the value of ”1” if the student has parents who are entrepreneurs and ”0” if otherwise (Solesvik, 2013).

Figure 3.3: Multidimensional scaling (MDS) results for Personal Value items



Control variables

We collected data on three control variables: age, gender, and EI. Prior research found negative correlations between age and willingness to be involved in international businesses (Oviatt *et al.*., 2004), and males tend to have a more positive attitude toward committing to entrepreneurial activities than their female counterparts (Strobl *et al.*., 2012).

Finally, given the positive connection between EI and IEI, we also control for EI. This variable was measured by a 6-item Likert scale, based on the Individual Entrepreneurial Intent Scale (Thompson, 2009). We acknowledge that IEI is the combination of entrepreneurial intention and entrepreneurial internationalization. In other words, the intention to internationalize future business is a combination of two aspects: the intention to

found the business, and the intention to internationalize the business. In this paper, we are specifically interested in the internationalization aspect of IEI. By adding EI as a control variable, we can explore the variance of IEI that is not explained by EI, namely the intention to internationalize.

3.1. Data analysis

We used Partial Least Square (PLS) regression analyses to analyse the data (SmartPLS 3.0. PLS; Ringle *et al.*., 2015). PLS does not only allow for the construction and validation of second-level factors needed for the higher-level personal value constructs but also avoids multicollinearity issues related to correlated independent variables (Cramer, 1993), which is inevitable while analysing personal values (George, 2011). PLS is also suitable for theory development in novel topics, compared to covariance-based methods (Hair *et al.*., 2011). The significance of each model and parameter estimates were evaluated using 5,000 nonparametric bootstrapping iterations. As per standard practice in SmartPLS 3.0 (Garson, 2016), all variables are standardized before analysis – including dummy variables.

4. Results

4.1. Measurement model and descriptive statistics

Before estimating the quality of the structural model, we assessed the reliability and validity of our measurement model. To do so, we first calculated construct reliability, which is assessed by composite reliability (range .76 to .91). All values exceeded the recommended minimum of .70 (Fornell and Larcker, 1981). As indicated in Table 3.2, all indicators were significantly associated with their respective constructs ($p < .001$). To test the convergent and discriminant validity, we calculated the bivariate correlations between the study variables and the Average Variance Extracted (AVE) of each construct (see Table 3.2). As PLS algorithms calculate factor loadings and path coefficients simultaneously to maximize data optimization (Cramer, 1993; Hair *et al.*., 2011), the latent score of any estimated latent constructs may change as the model specifications alter. As we estimated a series of hierarchical models to estimate our models, the scores of the latent variables are different

for each tested model. Thus, to calculate the bivariate correlations, we extract the scores of the latent variables of the last model, which includes all main effects and moderations.

Table 3.2: Factor loadings, cross-validated redundancy and communality, composite reliability, and AVE of latent variables

	Factor loading/ path coefficient	**Cross validated redundancy Q^2**	**Cross validated communality Q^2**	**Composite reliability**	**AVE**
International Entrepreneurial Intention (IEI)		.532		.914 ***	.779 ***
Value: Openness to Change		.329	.205	.821 ***	.335 ***
Self-Direction	.539 ***	.167		.790 ***	0.487 ***
Stimulation	.462 ***	.199		.810 ***	0.587 ***
Hedonism	.218 ***	.146			0.556 ***
Value: Self-enhancement		.351	.230	.840 ***	0.357 ***
Hedonism	.230 ***	.146		.788 ***	0.556 ***
Achievement	.583 ***	.305		.844 ***	0.578 ***
Power	.439 ***	.278		.836 ***	0.631 ***
Value: Conservation		.281	.181	.834 ***	0.288 ***
Security	.454 ***	.185		.795 ***	0.445 ***
Conformity	.410 ***	.121		.764 ***	0.454 ***
Tradition	.392 ***	.164		.780 ***	0.478 ***
Value: Self-transcendence		.336	.190	.836 ***	0.342 ***
Benevolence	.447 ***	.191		.800 ***	0.504 ***
Universalism	.715 ***	.223		.827 ***	0.445 ***

*** p <0.01; ** p < .05; * p < 0.10

Table 3.3: Descriptive statistics for university education

University study program	Number of students
Entrepreneurship	112
Business Management	198
Economics	77
Non-Faculty of Business and Economics	23
Total	**410**

Table 3.4: Descriptive statistics for parents' occupation

	Number of students
Civil Servant	66
Military	7
Police	18
Teacher	16
Lecturer	5
Stated Owned Company	45
Private Owned Company	82
Entrepreneur	111
Others	60
Total	**410**

The correlations between Schwartz's personal values, reported in Table 3.5, show that the values indeed reflect the circumplex value model: adjacent values are moderately correlated, while values on opposite sides have significantly lower correlations. For example, self-transcendence is strongly correlated with openness to change and conservation (.405, $p <$

.010; and .564, $p < .010$, respectively), while it is only weakly correlated with self-enhancement (.098, $p < .050$). The correlations between the personal value latent variables also explain the low estimates for the average variance extracted (AVE) values. As displayed in Table 3.2, the AVE of the personal value latent variables ranges from .281 for conservation to .351 for self-enhancement values. These values are lower than the .50 threshold for convergent validity (Hair *et al.*., 2011). However, because the items of the personal value questionnaire were designed to represent the two-dimensional circumplex value model (Schwartz and Boehnke, 2004), their latent variables are not orthogonal and thus, low convergent validity is an expected result.

Gender has a negative correlation with IEI (-.186, $p < .010$). This result depicts that male students have a significantly higher intention to form international business. In addition, as expected, studying in an entrepreneurship-related program has a positive correlation with IEI (.134, $p < .010$). Finally, EI and IEI are moderately and significantly correlated (.494, $p < .010$).

4.2. PLS models

To test the hypotheses, we ran a series of regression models using SmartPLS 3.0. We first regressed IEI on the control variables (Model 0). We then added the higher-level values (openness to change, self-enhancement, conservation, and self-transcendence) in Model 1. Finally, we added the moderating variables in Models 2, 3 and 4. In Model 2, we added entrepreneurial parents as a single moderator whereas the entrepreneurial program was included as a moderator variable in Model 3. Both moderators were included in Model 4.

We tested the quality of the structural models by evaluating the predictive validity using the coefficient of determination in endogenous variables (R^2) (Chin, 1998), the regression coefficients' significance using bootstrapping (Hair *et al.*., 2011), and the Stone-Geisser-Criterion (Q^2) using the blindfolding procedure with an omission distance of 7 to test the relevance of each included variable (Tenenhaus *et al.*., 2005). The R^2 values for all models are satisfactory and changes in R^2 indicate that inclusion of the moderators improved model fit. The cross-validated redundancy measures yield positive Q^2 values, showing that the structural model has predictive relevance and that none of the latent variables in the model is redundant ($Q^2 > 0$) (Hair *et al.*., 2011). For hypotheses testing, we assessed the sign and

magnitude of path coefficients and their t-values obtained by applying nonparametric bootstrapping, and calculating the effect sizes and total effects (Chin, 1998).

The results of PLS regression models are displayed in Table 3.6. The first hypothesis suggests that openness to change and self-enhancement have a positive impact on IEI. The regression Model 4 shows a positive and significant relation between self-enhancement and IEI (β = .102, p = .025). This result fully supports hypothesis 1a. Openness to change also has a positive association with IEI, however, this impact is not statistically significant (β = .100, p = .108). Hypothesis 1b is therefore not supported.

Hypotheses 1c and 1d suggest a negative impact of conservation and self-transcendence values on IEI. The regression models return a negative, but insignificant coefficient for conservation (β = -.041, p = .434) and a positive but insignificant coefficient for self-transcendence (β = -.003, p = .963). Hence, Hypotheses 1c and 1d are not supported.

Regarding the hypothesized moderating effects, we found a positive and marginally significant interacting effect of entrepreneurial parents and conservation on IEI (β = 0.115, p = 0.019). This result supports hypothesis 3c and suggests that although international entrepreneurship goes against the conventional understanding of conservation values (Hueso, Jaén, Liñán, *et al.*., 2020; Schwartz, 2003), having entrepreneurs as parents may alter the perception of self-employment, and may therefore switch the impact of conservation from negative to positive (Scherer *et al.*., 1989). Multigroup analysis shows that for students without entrepreneurial parents, conservation values are negatively related to IEI (β = -0.115, p = .062), whereas conservation is positively related to IEI for students with entrepreneurial parents (β = -0.145, p = .127). The significant moderating effect is visualized in Figure 3.4.

For the hypotheses involving the interaction between having entrepreneurs as parents and openness to change and self-enhancement, the results are not significant. Similarly, none of the interactions between the entrepreneurial program and any personal value have a significant impact on IEI. Thus, Hypothesis 2a, 2b, 2c, 2d, 3a, 3b and 3d are therefore not supported.

Table 3.5: Bivariate correlation matrix

		Min	Max	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	Age	17.00	30.00	19.685	1.415									
(2)	Gender	1.00	2.00	1.456	0.499	-.011								
(3)	Entrepreneurial Parents	0.00	1.00	0.271	0.445	-.078	-.018							
(4)	Entrepreneurial Program	0.00	1.00	0.483	0.500	.246**	-.121*	.037						
(5)	Openness to Change	2.70	5.00	4.161	0.476	.089	-.024	.065	.129**					
(6)	Self-Enhancement	1.80	5.00	3.665	0.609	.000	.083	.056	.162**	.416**				
(7)	Conservation	2.15	5.00	4.023	0.450	.009	-.021	.047	.034	.184**	.144**			
(8)	Self-Transcendence	1.90	5.00	4.269	0.426	-.016	-.047	.022	-.041	.405**	.098*	.564**		
(9)	Entrepreneurial intention (EI)	2.33	7.00	5.003	1.382	-.011	-.116*	.107*	-.078	.373**	.137**	.143**	.195**	
(10)	International entrepreneurial intention (IEI)	1.00	7.00	5.326	0.873	.010	-.186**	.090	.134**	.321**	.212**	.065	.120*	.494**

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed).

Note: The variables of Gender, Entrepreneurial Parents and Entrepreneurial Program are dummy variables; variables of personal values (Openness to change, self-enhancement, conservation and self-transcendence) are measured on 5-point Likert scale, while the variables of EI and IEI are measured on 7-point Likert scale.

The maximum value, minimum value, mean and standard deviation of variables are calculated with unstandardized variables and sum score of unstandardized variables using SPSS 26. The correlation matrix is calculated by extracting latent variables of PLS Model 4 and calculating the bivariate correlation of the latent variables by SPSS 26.

Table 3.6: Partial Least Squares (PLS) regression results

	Model 0		**Model 1**		**Model 2**		**Model 3**		**Model 4**	
	Control model		Personal values		Moderations (Entrepreneurial parents)		Moderations (Entrepreneurial programs)		Moderations (both)	
Variable	Beta	p-value	Beta	p-value	Beta	p-value	Beta	p-value	Beta	p-value
Age	0.016	.672	-0.025	.515	-0.028	.442	-0.020	.599	-0.023	.547
Gender	-0.131	.002**	-0.126	.002***	-0.124	.003***	-0.120	.006***	-0.117	.007***
Entrepreneurial intention (EI)	0.480	<.001***	0.44	<.001***	0.444	<.001***	0.443	<.001***	0.446	<.001***
Entrepreneurial Parents	0.027	.511	0.024	.571	0.017	.691	0.023	.586	0.016	.718
Entrepreneurial Program	0.164	<.001***	0.13	.002***	0.133	.002***	0.130	.002***	0.133	.002***
Openness to Change			0.100	.110	0.097	.106	0.102	.101	0.100	.108
Self-Enhancement			0.104	.022**	0.105	.016**	0.101	.028**	0.102	.025**
Conservation			-0.043	.423	-0.044	.396	-0.040	.459	-0.041	.434
Self-Transcendence			0.006	.910	0.004	.946	-0.000	.997	-0.003	.963

Table 3.6: Partial Least Squares (PLS) regression results (continued)

	Model 0		**Model 1**		**Model 2**		**Model 3**		**Model 4**	
	Control model		Personal values		Moderations (Entrepreneurial parents)		Moderations (Entrepreneurial programs)		Moderations (both)	
Variable	Beta	p-value	Beta	p-value	Beta	p-value	Beta	p-value	Beta	p-value
Entrepreneurial Parents * Openness to Change					0.068	.226			0.071	.205
Entrepreneurial Parents * Self-Enhancement					-0.028	.533			-0.031	.494
Entrepreneurial Parents * Conservation					0.115	.020**			0.115	.019**
Entrepreneurial Parents * Self-Transcendence					-0.089	.168			-0.088	.170
Entrepreneurial program * Openness to Change							-0.043	.431	-0.049	.381

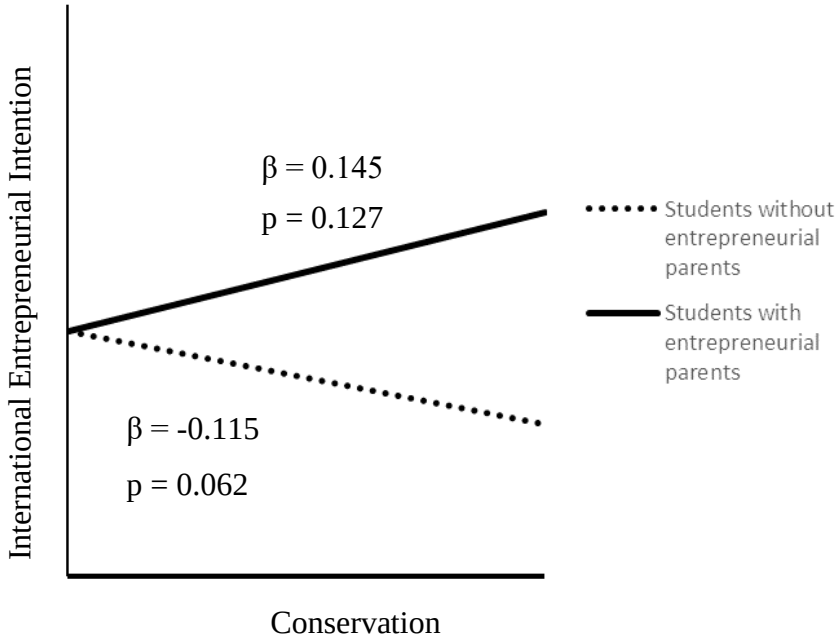
Table 3.6: Partial Least Squares (PLS) regression results (continued)

	Model 0		**Model 1**		**Model 2**		**Model 3**		**Model 4**	
	Control model		Personal values		Moderations (Entrepreneurial parents)		Moderations (Entrepreneurial programs)		Moderations (both)	
Variable	Beta	p-value	Beta	p-value	Beta	p-value	Beta	p-value	Beta	p-value
Entrepreneurial program * Self-Enhancement							0.017	.710	0.019	.677
Entrepreneurial program * Conservation							-0.016	.748	-0.020	.691
Entrepreneurial program * Self-Transcendence							0.037	.521	0.039	.493
R-squared	.263 ***		.312 ***		.323 ***		.314 ***		.325 ***	
Adjusted R-squared	.257 ***		.297 ***		.301 ***		.291 ***		.296 ***	

*** p < 0.01; ** p < 0.05; * p < 0.1

Note: The variables of these models (including dummy variables) are standardized due to automatic procedure in SmartPLS3.0

Figure 3.4: Moderating effect of having entrepreneurial parents on the connection between conservation and IEI



5. Discussion

Our studies confirm the circumplex distribution of Schwartz's personal values model. This confirmation is visualized in Figure 3.3, in which the items of Schwartz's personal values are arranged following the theoretical circular model. Additionally, we recognize that while the theoretical model suggests antithetical relationships between values of opposite positions on the circumplex mode, our bivariate correlation matrix displays a positive correlation between opposing values. This result reflects the results in a study by Schwartz and Boehnke (2004), in which they remarked on the possibility of near-zero or positive correlation between opposing values[3].

[3] By estimating the bivariate correlation between personal value item scores before model-related statistics are involved (factor loadings, etc.), we observe negative correlation between the item scores. For example, the (standardized) score of PV28 (which belongs to "security" value) has a negative correlation with items from

The main concern of this paper is the relationship between personal values and IEI. Our unique contribution to the literature is twofold. The first contribution is that we combine the relationship between personal values and internationalization (Bolzani and Foo, 2018) with the role of personal values in the formation of entrepreneurial intention (Hueso, Jaén, and Liñán, 2020). The result is a conceptual model using personal values to predict the intention to internationalize, focusing primarily on the pre-foundation period. Furthermore, as the impact of personal values on entrepreneurial intention has been quite thoroughly explored (Hueso, Jaén, and Liñán, 2020), in this paper we attempt to explore the impact of personal values on the *internationalization* aspect of IEI – reflected by our decision to add EI as a control variable.

The results of our models highlight the importance of examining personal values in relation to IEI (Hueso, Jaén, and Liñán, 2020; Liñán and Fayolle, 2015). More specifically and in line with our expectations, students with higher scores on self-enhancement values have higher intentions to start an international business. Apparently, students with these personal values find international entrepreneurship compatible with their motivations and goals and have the intention to follow this career – which is a difficult and risky choice (Evers & O'Gorman, 2011; George *et al.*., 2005; Joardar & Wu, 2011; Mcdougall *et al.*., 2003; Zahra *et al.*., 2000). Because self-enhancement values are associated with gaining personal success and competence, desiring control over people and resources, and striving for self-gratification (Schwartz, 2003), they will most likely establish an international business with the ultimate goal of gaining great social and financial rewards (Carter, 2011; Shane *et al.*., 2003).

Contrary to our expectations, the parameter estimates of openness to change, conservation and self-transcendence do not reach significance. Hypotheses 1a, c and d are therefore not supported. We propose several explanations for these insignificant effects. ~~First~~, As we

PV11 to PV14 which are items of the value of Self-direction, the opposite of Security value on the circular model. In particular, the correlation estimates between PV28 and PV11 - PV14 are -0.190, -0.106, -0.195 and -0.164, respectively.

mentioned above, in this paper we used traditional EI as a control variable. Although international entrepreneurship has unique qualities (Evers & O'Gorman, 2011; Joardar & Wu, 2011; Mcdougall *et al.*., 2003), it shares many other determinants with traditional entrepreneurship such as proactiveness, willingness to take risks, and innovativeness (Jones *et al.*., 2011; Mcdougall *et al.*., 2003; Zhou, 2007). Furthermore, the intention to create a business necessarily precedes the intention to internationalize future businesses. The strong correlation between EI and IEI (β = 0.494, p < .010) illustrates their correspondence.

As Tables 3.6 and 3.10 demonstrate, there are differences between the model in which EI is included as a control variable (the main analysis of this paper, displayed in Table 3.6) and the model in which EI is not included (the model in Table 3.10 in the Appendix). In particular, in the model without EI (Table 3.10), the impact of openness to change values on IEI is significant. This is not the case when we have EI as a control variable. By including general EI as a control variable, we exclude the predicting power of personal values that are shared between the two forms of EI. Although potentially resulting in a model with less significant effects, this approach helps us to focus on influences that are unique to the internationalization element of IEI.

The Indonesian context might explain our insignificant results as well. Emerging economies such as Indonesia have weak export competitiveness (Winkler and Farole 2012). Studies on these countries have shown a more hesitant attitude of entrepreneurs toward international entrepreneurship and a preference for running smaller, local businesses instead (Bhasin & Venkataramany, 2010; Handrito *et al.*., 2020; Tambunan, 2007, 2008). More importantly, Indonesia is a collectivistic culture[4], where personal decisions are not only determined by personal aspects but are also strongly influenced by social frameworks and ideals. Both, the general preference to stay local and the cultural values may cause personal values to not directly manifest into intention and choices.

[4] Hofstede Insight. Retrieved from https://www.hofstede-insights.com/ on 11 March 2021

The second unique contribution of our paper is that we offer policymakers and universities strategies to control the impact of values on IEI. As this is still a rather new topic (Hueso, Jaén, and Liñán, 2020), existing papers on the impact of personal values often overlook how personal values are not necessarily malleable, and it can be hard to deliberately shape personal values into a desirable mould (Bardi et al., 2009; Vecchione et al., 2016). Studies on personal values and entrepreneurship, therefore, face difficulty when recommending policymakers to shape individuals' personal values. They must, therefore, go beyond pointing out this relationship in order to make practical suggestions. In particular, in our paper, we examine this moderating effect by estimating the interaction of entrepreneurial role models and entrepreneurial knowledge with personal values.

We operationalized role models by means of having entrepreneurial parents. Here, we found a positive and significant interaction between having entrepreneurial parents and conservation values. This result reveals an important insight into the dynamic interaction between personal values and the environmental context. In particular, conservation values involve following the norm and not disrupting current conditions (Schwartz, 2003). Conservation values are also associated with risk aversion and diverting away from high-risk-high-reward situations (Hueso, Jaén, Liñán, *et al.*., 2020). As international entrepreneurship requires proactiveness, flexibility and risk-taking (Jones *et al.*., 2011; Mcdougall *et al.*., 2003; Zhou, 2007), conservation values are therefore considered undesirable or a hindrance to the development of entrepreneurship in general (Hueso, Jaén, Liñán, *et al.*., 2020). The visualization of the moderating effect in Figure 3.4 (see supra) shows that the relation between conservation values and IEI is contingent upon the role models someone is exposed.

In particular, under the influence of entrepreneurial role models (in this case, entrepreneurial parents), this connection turns from negative (β = -0.115) to positive (β = 0.145). This result expands the importance of role models in the entrepreneurial intention research domain. The effectiveness of entrepreneurial role models in stimulating EI has only been explored from the perspective of considering role models as a source of knowledge, successful examples, or supports and inspirations (Bosma *et al.*., 2012; Zozimo *et al.*., 2017), even in studies that examine the interaction between entrepreneurial role models and personal aspects (Chlosta *et al.*., 2012; Laviolette *et al.*., 2012). In the current study, we find that people who have

values that are traditionally associated with avoiding entrepreneurial activities can be positively triggered *towards* IEI given exposure to entrepreneurial role models.

Such an effect of entrepreneurial role models is particularly important for interdependent cultures such as Indonesia. Within such cultures, normative influences are very strong (compared to independent societies). As a consequence, behaviours can be publicly monitored (Savani *et al.*., 2015). Thus, in addition to, or instead of, trying to influence individuals' personal values (Hueso, Jaén, Liñán, *et al.*., 2020), one can try to optimize the surrounding environment to activate the interest in international entrepreneurship of those scoring high on conservation values. Given that personal values are stable, especially in adolescence and adulthood (Sagiv *et al.*., 2017), governments and organizations can thus choose to "build" an environment to stimulate IEI instead of trying to shape students' personal values (Arieli *et al.*., 2016; Sagiv *et al.*., 2017), by exposing young people to entrepreneurial role models via developing programs or (social) media.

In addition, the significant direct effect of entrepreneurial knowledge suggests that participating in an entrepreneurial study program has a significant and positive direct effect on IEI. However, we do not find support for the hypothesized interaction between studying in an entrepreneurial program and personal values. This indicates that entrepreneurial education positively impacts the intention to found an international business, regardless of a person's personal value orientation. This result strongly reinforces arguments on the positive role of education and knowledge in expanding international entrepreneurship (Pittaway & Cope, 2007; Wang & Wong, 2004; Watchravesringkan *et al.*., 2013). For example, knowledge is crucial in international opportunity recognition (Oviatt & Mcdougall, 2005; Zahra *et al.*., 2005), and entrepreneurial knowledge improves self-efficacy and confidence toward international entrepreneurship (Peterman and Kennedy 2003; Roxas 2014). Our results add to this by showing that knowledge also increases the intentions to establish an international business in students.

All in all, our research combines and extends prior studies on EI (Hueso, Jaén, & Liñán, 2020; Shane *et al.*., 2003) and the phenomenon of business internationalization (George *et al.*., 2005; Jones *et al.*., 2011; Oviatt & Mcdougall, 2005), applying the prior knowledge on the relation between personal values and IEI in students. Our results signify the promising

potential of studying personal values as antecedents of IEI. Furthermore, considering that intention is an essential determinant of actual behaviour (Ajzen, 1991; Krueger *et al.*., 2000), and that international entrepreneurship has a highly beneficial impact on regional development (Acs *et al.*., 2008; Bhasin & Venkataramany, 2010; Hessels & Stel, 2007; Tambunan, 2007, 2008; Valliere & Peterson, 2009), our results also support the importance of examining personal values in stimulating regional economic development.

5.1. Implications for practice

Our study shows that entrepreneurial knowledge and education have direct, positive relationships with IEI on all personal value profiles. This result suggests that entrepreneurial programs in educational institutions are beneficial in stimulating IEI in general. The responsibility of maintaining entrepreneurial education is not only held by universities and institutions – in which programs are implemented and supportive infrastructures are added – but also by governments and policymakers, who are accountable for creating nation-level policies to incentivise the development and implementation of entrepreneurial education (Lüthje and Franke, 2003; Pittaway and Cope, 2007). Additionally, methods of entrepreneurial education are not only limited to lectures, but also take other forms such as mentoring, internship, or collaborating on projects with existing small firms (Pittaway and Cope, 2007).

In addition, regarding entrepreneurial role models, the significant interaction between role models and conservation values in our paper suggests that the ”benefits” of entrepreneurial role models go beyond their capacity to share knowledge (Zozimo *et al.*., 2017), provide resources (Bosma *et al.*., 2012) and to improve self-efficacy (Laviolette *et al.*., 2012). That is, role models may have the power to reverse negative intentions to positive intentions amongst students who value conservatism. As a consequence, widespread exposure to entrepreneurial role models may instigate doubting or reluctant students to consider the establishment of an international business. To do so, stakeholders such as local governments or universities can increase students’ exposure to successful entrepreneurial role models via guest lectures, seminars, or mass media (Van Auken et al., 2006). Entrepreneurs can also take the initiative themselves, choosing to appear in media more proactively and with higher frequency.

Interestingly, the unselective positive impact of knowledge and the conditional impact of role models may be captured in joint initiatives. An example of such an initiative is the creation of entrepreneur-focused regions (Dohse and Walter, 2012). Research in developed countries shows that the transition toward entrepreneurial regions provides better access to resources, and facilitates knowledge spill over and coordination (Lawton Smith *et al.*. 2013). The proximity of businesses and educational institutions may also facilitate knowledge sharing between (international) entrepreneurs and students and provides international entrepreneurs ample opportunities to show their accomplishments to students, and thus act as role model. This model of entrepreneurial stimulation deserves further studies and experiments, especially in emerging countries.

5.2. Limitations and Future Research

Similar to all other studies, our paper comes with its own limitations in theoretical scope and empirical methodologies. The first limitation is how the dataset might imply a lack of representativeness and biases. On the micro level, we collected cross-sectional data collected from only higher-education students. The majority of participants in the survey were students from business and economics majors. Students of economics-related majors may have better access to entrepreneurial role models and knowledge, as well as go through entrepreneurship-related topics in their required curricula. Because of this enhanced exposure to entrepreneurship, their self-reports on entrepreneurial and international entrepreneurial intention can average higher than the average population (Krueger, 1993). On the macro level, the context of this research is constrained to Indonesia. Although this country is representative of the SME environment of emerging countries (Bhasin and Venkataramany 2010; Tambunan 2007, 2008), the empirical results of this research may only be applicable to countries with similar characteristics. For example, as we have mentioned, countries such as Indonesia have specific national cultures that might weaken how personal values impact intentions and decisions (Hofstede, 2001). These countries also have a specific environment for SMEs, in which the majority of the entrepreneurial businesses are limited to serving the local demands and lack the intention to grow internationally, leading to a lower average of IEI. These potential biases cannot be addressed using a homogenous dataset, as only larger and more diverse datasets can have adequate

variation of these individual-level and contextual-level factors, and make in-depth comparisons between students of diverse backgrounds or of different cultures.

Second, in our study, values and contextual effects are studied as independent and interacting, yet static variables. However, one cannot eliminate the possibility that one's personal values and surrounding environmental factors have interdependent connections, leading to personal values being shifted (Sagiv et al., 2017; Schwartz, 2005; Vecchione et al., 2016). Indeed, training programs as well as impactful events seem to have a small effect on values (Arieli *et al.*., 2016; Bardi *et al.*., 2014; Lönnqvist *et al.*., 2011). We suggest that longitudinal studies on the interaction between personal values and surrounding contextual factors are necessary to have a better view of the interplay between values, context, and international entrepreneurship (Milfont *et al.*., 2016; Vecchione *et al.*., 2016).

Third, we took entrepreneurial parents as the operationalization of role models. We find a significant interaction between role models and personal values, turning the negative relation between personal values and IEI to positive. This should inspire future researchers to fully understand the effect of role models, especially how sufficient exposure to role models can change the perception of conventions and norms. To have the highest effectiveness of role models, nuances in selecting role models need to be considered, such as gender, age, or how students can relate to the role models (Laviolette *et al.*., 2012). Considering there are several types of role models with different influence mechanisms and effectiveness, there is potential for more in-depth studies on the interaction between personal values and other forms of role models. Distanced role models such as successful examples on television or social media are, for example, incomparable with close-connection role models in terms of influence effectiveness (Bosma *et al.*., 2012). All in all, future studies can further search for the effects of more fine-grained types of knowledge and role models, such as codified and tacit aspects of entrepreneurial knowledge (Dohse and Walter, 2012), or different types of role models (Bosma *et al*., 2012; Dohse & Walter, 2012; Scherer *et al.*., 1989; Zozimo *et al.*., 2017).

Fourth, our study cannot cover the complications regarding the interdependence between personal values and role models such as entrepreneurial parents. While it has been recognized that parents' values and occupations can shape their children's views (e.g., Pratt et al., 2003; Soleimanof et al., 2021), this relationship has many intricacies that could not be

adequately addressed by our dataset. We will need to include all aspects of parenthood, rather than only parents working as entrepreneurs. For example, the nature of the relationship between parents and their children can define how parents' values and children's values correlate (Pratt et al., 2003). A good relationship can lead to children following their parents' beliefs, but a bad relationship can have the opposite effect (Liu et al., 2007; Pratt et al., 2003).

Fifth, our study only covers personal values, which are basic-level personality constructs (Fayolle *et al.*., 2014; Sagiv *et al.*., 2017), and does not include more operational constructs such as attitudes, efficacy, and risk-taking. Previous studies showed that personal values and traditional entrepreneurial intention are mediated by attitudes, efficacy, and risk-taking (Krueger *et al.*., 2000; Kruse *et al.*., 2019; Yang *et al.*., 2015). The impact of personal values on IEI may share similar mechanisms. Future studies can dissect the total effect of personal values on IEI, finding out the connection between personal values and operational constructs such as attitude, efficacy, and risk-taking.

Sixth, the conceptual model of this paper is limited to examining antecedents of IEI. Future studies can dive deeper into direct comparisons between psychological and contextual antecedents of IEI and those of domestic (general) EI, and examine, e.g., how international entrepreneurship is more demanding in terms of knowledge, commitment and resources compared to its domestic counterpart (Mcdougall *et al.*., 2003). There is also an abundance of contextual factors that may play a role in the formation of IEI, for example, exposure to international cultures, global mindset or cultural intelligence (Ang *et al.*., 2007; Jie & Harms, 2017; Levy *et al.*., 2007).

Finally, this paper only focuses on the individual-level aspect of personal values and contextual factors. Antecedents or barriers to international entrepreneurship can also extend to nation-level contexts such as culture, policies or market conditions (Ruzzier *et al.*., 2006; Thomas & Mueller, 2000; Zahra *et al.*., 2005). For example, Indonesia has a highly collectivist culture[5], where personal decisions are strongly influenced by social frameworks

[5] Hofstede Insight. Retrieved from https://www.hofstede-insights.com/ on 11 March 2021

and ideals. In such a culture, it is harder for personal values to directly manifest into intentions and choices. We suggest cross-cultural studies to examine how nation-level variables interact with individual-level values, and how their combined effects can stimulate international entrepreneurship, or steer potential entrepreneurs' attention from local, low-growth entrepreneurship to highly beneficial international entrepreneurship, which is highly valuable for emerging economies.

5.3. Conclusion

To better understand the importance of international entrepreneurship to regional development, we explored the intention to found an international entrepreneurial business before the business foundation. With the hypotheses and empirical results, we expanded the infant research topic of IEI and pinpointed the importance of psychological antecedents of IEI and the interacting effects of contextual factors. As intention is an important first step towards actual behaviour (Ajzen, 1991; Shirokova *et al.*., 2016), knowledge on this topic plays a crucial role in stimulating international entrepreneurship (Krueger *et al.*., 2000; Liñán & Fayolle, 2015). To serve this purpose, we focused on personal values as our focal antecedent, a concept that proved its relevance in the broader business and management domain (Egri and Herman, 2000; Fritzsche and Oz, 2007) but has been relatively neglected in relation to IEI (Hueso, Jaén, and Liñán, 2020). Our results show that the values of self-enhancement have a positive impact on IEI, adding to the role of personal values in this research domain. We achieve this result when EI is used as a control variable, further reinforcing the differentiation between IEI and IEI. In addition, we add moderating contextual factors such as entrepreneurial knowledge and entrepreneurial role models as measures with which policymakers can influence how values impact IEI, rather than attempting to change values themselves. We discover that while entrepreneurial education has a universal positive impact on IEI and has no significant moderating effect, exposure to entrepreneurial role models can significantly improve the relationship between values of conservation and IEI.

References

Abessolo, M., Rossier, J., and Hirschi, A. (2017). Basic values, career orientations, and career anchors: Empirical investigation of relationships. Frontiers in Psychology, 8(1556). https://doi.org/10.3389/fpsyg.2017.01556

Acs, Z. J., Desai, S., and Hessels, J. (2008). Entrepreneurship, economic development and institutions. Small Business Economics, 31(3), 219–234. https://doi.org/10.1007/s11187-008-9135-9

Ajzen, I. (1991). The Theory of Planned Behaviour. Organizational Behaviour and Human Decision Processes, 50(2), 179–221.

Alayo, M., Maseda, A., Iturralde, T., and Arzubiaga, U. (2019). Internationalization and entrepreneurial orientation of family SMEs: The influence of the family character. International Business Review, 28(1), 48–59.

Ang, S., Van Dyne, L., Koh, C., Ng, K. Y., Templer, K. J., Tay, C., and Chandrasekar, N. A. (2007). Cultural Intelligence: Its Measurement and Effects on Cultural Judgment and Decision Making, Cultural Adaptation and Task Performance. Management and Organization Review, 3(3), 335–371.

Arieli, S., Sagiv, L., and Cohen-Shalem, E. (2016). Values in business schools: The role of self-selection and socialization. Academy of Management Learning and Education, 15(3), 493–507. https://doi.org/10.5465/amle.2014.0064

Armitage, C. J., and Conner, M. (2001). Efficacy of the Theory of Planned Behaviour : A Meta-Analytic. British Journal of Social Psychology, 40, 471–499.

Åstebro, T., Bazzazian, N., and Braguinsky, S. (2012). Startups by recent university graduates and their faculty: Implications for university entrepreneurship policy. Research Policy, 41(4), 663–677. https://doi.org/10.1016/j.respol.2012.01.004

Bann, C. (2009). Journal of Business & Economic Studies, Vol. 15, No. 2, Fall 2009 An Innovative View of the Entrepreneur Through Exploration of the "Lived Experience" of the Entrepreneur in Startup of the Business. Journal of Business & Economic Studies, 15(2), 62–83.

Bardi, A., Buchanan, K. E., Goodwin, R., Slabu, L., and Robinson, M. (2014). Value Stability and Change during Self-Chosen Life Transitions: Self-Selection vs. Socialization Effects. Journal of Personality and Social Psychology, 106(1), 131.

Bardi, A., Lee, J. A., Hofmann-Towfigh, N., & Soutar, G. (2009). The structure of intraindividual value change. Journal of personality and social psychology, 97(5), 913.

Bardi, A., and Schwartz, S. H. (2003). Values and Behaviour: Strength and Structure of Relations. Personality and Social Psychology Bulletin, 29(10), 1207–1220. https://doi.org/10.1177/0146167203254602

Bhasin, B. B., and Venkataramany, S. (2010). Globalization Of Entrepreneurship: Policy Considerations For SME Development In Indonesia. International Business & Economics Research Journal (IBER), 9(4), 95–104. https://doi.org/10.19030/iber.v9i4.557

Bird, B. (1988). Implementing Entrepreneurial Ideas: The Case for Intention. Academy of Management Review, 13(3), 442–453. https://doi.org/10.5465/amr.1988.4306970

Bloemen-Bekx, M., Voordeckers, W., Remery, C., and Schippers, J. (2019). Following in parental footsteps? The influence of gender and learning experiences on entrepreneurial intentions. International Small Business Journal: Researching Entrepreneurship, 37(6), 642–663. https://doi.org/10.1177/0266242619838936

Bolzani, D., and Foo, M. Der. (2018). The "why" of international entrepreneurship: uncovering entrepreneurs' personal values. Small Business Economics, 51(3), 639–666. https://doi.org/10.1007/s11187-017-9945-8

Bosma, N., Hessels, J., Schutjens, V., Praag, M. Van, and Verheul, I. (2012). Entrepreneurship and role models. Journal of Economic Psychology, 33(2), 410–424. https://doi.org/10.1016/j.joep.2011.03.004

Bruton, G. D., Ahlstrom, D., and Obloj, K. (2008). Entrepreneurship in Emerging Economies: the Research Go in the Future. ENTREPRENEURSHIP THEORY and PRACTICE, 32(January), 1–14. https://doi.org/10.1111/j.1540-6520.2007.00213.x

Campopiano, G., Minola, T., and Sainaghi, R. (2016). Students climbing the entrepreneurial ladder: Family social capital and environment-related motives in hospitality and tourism. International Journal of Contemporary Hospitality Management, 28(6), 1115–1136. https://doi.org/10.1108/IJCHM-05-2014-0236

Carter, S. (2011). The Rewards of Entrepreneurship: Exploring the Incomes, Wealth, and Economic Well-Being of Entrepreneurial Households. Entrepreneurship: Theory and Practice, 35(1), 39–55.

Casado-Belmonte, M. del P., Marín-Carrillo, G. M., Terán-Yépez, E., and Capobianco-Uriarte, M. de las M. (2020). What is going on with the research into the internationalization of Small and Medium-Sized Enterprises (SMEs)? An intellectual structure analysis into the state-of-the-art (1990-2018). Publications, 8(1). https://doi.org/10.3390/publications8010011

Cavusgil, S. T., and Knight, G. (2015). The born global firm: An entrepreneurial and capabilities perspective on early and rapid internationalization. Journal of International Business Studies, 46(1), 3–16. https://doi.org/10.1057/jibs.2014.62

Chin, W. W. (1998). The partial least squares approach to structural equation modelling. Modern Methods for Business Research, 295(2), 295–336.

Chlosta, S., Patzelt, H., Klein, S. B., and Dormann, C. (2012). Parental role models and the decision to become self-employed: The moderating effect of personality. Small Business Economics, 38(1), 121–138. https://doi.org/10.1007/s11187-010-9270-y

Cope, J. (2005). Toward a dynamic learning perspective of entrepreneurship. Entrepreneurship: Theory and Practice, 29(4), 373–397.

Cramer, R. D. (1993). Partial Least Squares (PLS): Its strengths and limitations. Perspectives in Drug Discovery and Design, 1(2), 269–278.

Dekel-Dachs, O., Najda-Janoszka, M., Stokes, P., Simba, A., and Tarba, S. (2021). Searching for a new perspective on institutional voids, networks and the internationalisation of SMEs in emerging economies: a systematic literature review. International Marketing Review, 38(5), 879–899. https://doi.org/10.1108/IMR-12-2020-0303

Dohse, D., and Walter, S. G. (2012). Knowledge context and entrepreneurial intentions among students. Small Business Economics, 39(4), 877–895. https://doi.org/10.1007/s11187-011-9324-9

Dyer, G. W. (1994). Toward a Theory of Entrepreneurial Careers. Entrepreneurship Theory & Practice, 19(2), 7–22.

Egri, C. P., and Herman, S. (2000). Leadership in the North American Environmental Sector: Values, Leadership Styles, and Contexts of Environmental Leaders and Their Organizations. Academy of Management Journal, 43(4), 571–604.

Erikson, T. (2003). Towards a taxonomy of entrepreneurial learning experiences among potential entrepreneurs. Journal of Small Business and Enterprise Development, 10(1), 106–112. https://doi.org/10.1108/14626000310461240

Evers, N., and O'Gorman, C. (2011). Improvised internationalization in new ventures: The role of prior knowledge and networks. Entrepreneurship and Regional Development, 23(7–8), 549–574. https://doi.org/10.1080/08985621003690299

Fayolle, A., Liñán, F., and Moriano, J. A. (2014). Beyond entrepreneurial intentions: values and motivations in entrepreneurship. International Entrepreneurship and Management Journal, 10(4), 679–689. https://doi.org/10.1007/s11365-014-0306-7

Forcadell, F. J., and Úbeda, F. (2020). Individual entrepreneurial orientation and performance: the mediating role of international entrepreneurship. International Entrepreneurship and Management Journal. https://doi.org/10.1007/s11365-020-00693-8
Fornell, C., and Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. Journal of Marketing Research, 18(1), 39. https://doi.org/10.2307/3151312
Fritzsche, D. J., and Oz, E. (2007). Personal values' influence on the ethical dimension of decision making. Journal of Business Ethics, 75(4), 335–343. https://doi.org/10.1007/s10551-006-9256-5
Garson, G. D. (2016). Partial least squares: regression & structural equation models. In North Carolina: Statistical Associates Publishing.
George, B. A. (2011). Entrepreneurial Orientation: A Theoretical and Empirical Examination of the Consequences of Differing Construct Representations. Journal of Management Studies, 48(6), 1291–1313. https://doi.org/10.1111/j.1467-6486.2010.01004.x
George, G., Wiklund, J., and Zahra, S. A. (2005). Ownership and the internationalization of small firms. Journal of Management, 31(2), 210–233. https://doi.org/10.1177/0149206304271760
González-Pernía, J. L., and Peña-Legazkue, I. (2015). Export-oriented entrepreneurship and regional economic growth. Small Business Economics, 45(3), 505–522. https://doi.org/10.1007/s11187-015-9657-x
Hair, J. F., Ringle, C. M., and Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. Journal of Marketing Theory and Practice, 19(2), 139–152. https://doi.org/10.2753/MTP1069-6679190202
Handrito, R. P., Slabbinck, H., and Vanderstraeten, J. (2020). Enjoying or refraining from risk? The impact of implicit need for achievement and risk perception on SME internationalization. Cross Cultural and Strategic Management, 1–39. https://doi.org/10.1108/CCSM-03-2019-0068
Hessels, S. J., and Stel, A. J. van. (2007). Export Orientation among New Ventures and Economic Growth. (Issue ERIM Report Series Reference No. ERS-2007-008-ORG).
Hueso, J. A., Jaén, I., and Liñán, F. (2020). From personal values to entrepreneurial intention: a systematic literature review. International Journal of Entrepreneurial Behaviour & Research, 205–230.
Hueso, J. A., Jaén, I., Liñán, F., and Basuki, W. (2020). The influence of collectivistic personal values on the formation of entrepreneurial intentions. International Small Business Journal: Researching Entrepreneurship. https://doi.org/10.1177/0266242620903007
Ipsmiller, E., and Dikova, D. (2021). Internationalization from Central and Eastern Europe: A systematic literature review. Journal of International Management, 27(4), 100862. https://doi.org/10.1016/j.intman.2021.100862
Jennings, J. E., and Mcdougald, M. S. (2007). Work-family interface experiences and coping strategies: Implications for entrepreneurship research and practice. Academy of Management Review, 32(3), 747–760. https://doi.org/10.5465/AMR.2007.25275510
Jie, S., and Harms, R. (2017). Cross-Cultural Competences and International Entrepreneurial Intention : A Study on Entrepreneurship Education. Education Research International.
Joardar, A., and Wu, S. (2011). Examining the Dual Forces of Individual Entrepreneurial Orientation and Liability of Foreignness on International Entrepreneurs. Canadian Journal of Administrative Sciences, 28(3), 328–340.
Joensuu-Salo, S., Sorama, K., Viljamaa, A., and Varamäki, E. (2018). Firm Performance among Internationalized SMEs: The Interplay of Market Orientation, Marketing Capability and Digitalization. Administrative Sciences, 8(3), 31. https://doi.org/10.3390/admsci8030031
Jolly, V. K., Alahuhta, M., and Jeannet, J. (1992). Challenging the incumbents: How high technology start-ups compete globally. Strategic Change, I(2), 71–82.

Jones, M. V., Coviello, N., and Tang, Y. K. (2011). International Entrepreneurship research (1989-2009): A domain ontology and thematic analysis. Journal of Business Venturing, 26(6), 632–659. https://doi.org/10.1016/j.jbusvent.2011.04.001

Kelman, H. C. (2006). Interests, relationships, identities: Three central issues for individuals and groups in negotiating their social environment. Annual Review of Psychology, 57(1), 1–26. https://doi.org/10.1146/annurev.psych.57.102904.190156

Knafo, A., and Sagiv, L. (2004). Values and work environment: Mapping 32 occupations. European Journal of Psychology of Education, 19(3), 255–273. https://doi.org/10.1007/BF03173223

Kneller, R., and Pisu, M. (2007). Industrial linkages and export spillovers from FDI. World Economy, 30(1), 105–134. https://doi.org/10.1111/j.1467-9701.2007.00874.x

Knight, G. A., and Cavusgil, S. T. (2004). Innovation, organizational capabilities, and the born-global firm. Journal of International Business Studies, 35(2), 124–141. https://doi.org/10.1057/palgrave.jibs.8400071

Krueger, N. (1993). The Impact of Prior Entrepreneurial Exposure on Perceptions of New Venture Feasibility and Desirability. Entrepreneurship Theory and Practice, 18(1), 5–21. https://doi.org/10.1177/104225879301800101

Krueger, N. F., Reilly, M. D., and Carsrud, A. L. (2000). Competing Models of Entrepreneurial Intentions. Journal of Business Venturing, 15, 411–432.

Kruse, P., Wach, D., Costa, S., and Moriano, J. A. (2019). Values Matter, Don't They?–Combining Theory of Planned Behaviour and Personal Values as Predictors of Social Entrepreneurial Intention. Journal of Social Entrepreneurship, 10(1), 55–83. https://doi.org/10.1080/19420676.2018.1541003

Laviolette, E. M., Lefebvre, M. R., and Brunel, O. (2012). The impact of story bound entrepreneurial role models on self-efficacy and entrepreneurial intention. International Journal of Entrepreneurial Behaviour and Research, 18(6), 720–742. https://doi.org/10.1108/13552551211268148

Lawton Smith, H., Glasson, J., Romeo, S., Waters, R., and Chadwick, A. (2013). Entrepreneurial regions: Evidence from Oxfordshire and Cambridgeshire. Social Science Information, 52(4), 653–673. https://doi.org/10.1177/0539018413499978

Levy, O., Beechler, S., Taylor, S., and Boyacigiller, N. A. (2007). What we talk about when we talk about ' global mindset ': Managerial cognition in multinational corporations. Journal of International Business Studies, 38(2), 231–258.

Liñán, F., and Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions: citation, thematic analyses, and research agenda. International Entrepreneurship and Management Journal, 11(4), 907–933. https://doi.org/10.1007/s11365-015-0356-5

Liu, H., Yu, S., Cottrell, L., Lunn, S., Deveaux, L., Brathwaite, N. V., Marshall, S., Li, X., and Stanton, B. (2007). Personal values and involvement in problem behaviours among Bahamian early adolescents: A cross-sectional study. BMC Public Health, 7(135).

Lönnqvist, J. E., Jasinskaja-Lahti, I., and Verkasalo, M. (2011). Personal values before and after migration: A longitudinal case study on value change in ingrian-finnish migrants. Social Psychological and Personality Science, 2(6), 584–591. https://doi.org/10.1177/1948550611402362

López-bazo, E., Requena, F., and Serrano, G. (2006). Complementarity between local knowledge and internationalization in regional technological progress. Journal of Regional Science, 46(5), 901–929. https://doi.org/10.1111/j.1467-9787.2006.00490.x

Lüthje, C., and Franke, N. (2003). The "making" of an entrepreneur: Testing a model of entrepreneurial intent among engineering students at MIT. R and D Management, 33(2), 135–147. https://doi.org/10.1111/1467-9310.00288

Marsh, H. W., and Hau, K. T. (2003). Big-Fish-Little-Pond Effect on Academic Self-concept: A Cross-Cultural (26-Country) Test of the Negative Effects of Academically Selective Schools. American Psychologist, 58(5), 364–376. https://doi.org/10.1037/0003-066X.58.5.364

Martin, B. C., McNally, J. J., and Kay, M. J. (2013). Examining the formation of human capital in entrepreneurship: A meta-analysis of entrepreneurship education outcomes. Journal of Business Venturing, 28(2), 211–224. https://doi.org/10.1016/j.jbusvent.2012.03.002

Mcdougall, P. P., Oviatt, B. M., and Shrader, R. C. (2003). A Comparison of International and Domestic New Ventures. Journal of International Entrepreneurship, 1, 59–82. https://doi.org/10.1023/B:JIEN.0000032774.01082.41

Milfont, T. L., Milojev, P., and Sibley, C. G. (2016). Values Stability and Change in Adulthood: A 3-Year Longitudinal Study of Rank-Order Stability and Mean-Level Differences. Personality and Social Psychology Bulletin, 42(5), 572–588. https://doi.org/10.1177/0146167216639245

Moen, Ø., and Servais, P. (2002). Born global or gradual global? Examining the export behaviour of small and medium-sized enterprises. Journal of International Marketing, 10(3), 49–72. https://doi.org/10.1509/jimk.10.3.49.19540

Omri, W., and Becuwe, A. (2014). Managerial characteristics and entrepreneurial internationalization: A study of Tunisian SMEs. Journal of International Entrepreneurship, 12(1), 8–42. https://doi.org/10.1007/s10843-013-0119-8

Oviatt, B. M., and Mcdougall, P. P. (2005). Defining International Entrepreneurship and Modeling the Speed of Internationalization. Journal of International Entrepreneurship, 29(5), 537–553. https://doi.org/10.1111/j.1540-6520.2005.00097.x

Oviatt, B. M., and McDougall, P. P. (2000). International Entrepreneurship : The Intersection of Two Research Paths. The Academy of Management Journal, 43(5), 902–906.

Oviatt, B. M., Shrader, R. C., and McDougall, P. P. (2004). the Internationalization of New Ventures: a Risk Management Model. Advances in International Management, 16, 165–185.

Peterman, N. E., and Kennedy, J. (2003). Enterprise Education: Influencing Students' Perceptions of Entrepreneurship. Entrepreneurship Theory and Practice, 28(2), 129–144. https://doi.org/10.1046/j.1540-6520.2003.00035.x

Pittaway, L., and Cope, J. (2007). Entrepreneurship education: A systematic review of the evidence. International Small Business Journal, 25(5), 479–510. https://doi.org/10.1177/0266242607080656

Prashantham, S., Eranova, M., and Couper, C. (2018). Globalization, entrepreneurship and paradox thinking. Asia Pacific Journal of Management, 35(1), 1–9. https://doi.org/10.1007/s10490-017-9537-9

Prashantham, S., and Floyd, S. W. (2019). Navigating liminality in new venture internationalization. Journal of Business Venturing, 34(3), 513–527. https://doi.org/10.1016/j.jbusvent.2019.01.001

Pratt, M. W., Hunsberger, B., Pancer, S. M., and Alisat, S. (2003). A Longitudinal Analysis of Personal Values Socialization: Correlates of a Moral Self-Ideal in Late Adolescence. Social Development, 12(4), 563–585.

Pruett, M., Shinnar, R., Toney, B., Carolina, N., Llopis, F., and Fox, J. (2009). Explaining entrepreneurial intentions of university students : a cross-cultural study. International Journal of Entrepreneurial Behaviour & Research, 571–594.

Ringle, C. M., Wende, S., and Becker, J.-M. (2015). SmartPLS 3. Bönningstedt: SmartPLS. Retrieved from http://www.smartpls.com.

Roxas, B. (2014). Effects of entrepreneurial knowledge on entrepreneurial intentions: A longitudinal study of selected South-east Asian business students. Journal of Education and Work, 27(4), 432–453. https://doi.org/10.1080/13639080.2012.760191

Roxas, B. G., Cayoca-Panizales, R., and De Jesus, R. M. (2008). Entrepreneurial Knowledge and its Effects on Entrepreneurial Intentions: Development of a Conceptual Framework. Asia-Pacific Social Science Review, 8(2), 61–77. https://doi.org/10.3860/apssr.v8i2.784

Różycka-Tran, J., Ha, T. T. K., Cieciuch, J., and Schwartz, S. H. (2017). Universals and specifics of the structure and hierarchy of basic human values in Vietnam. Health Psychology Report, 5(3), 193–204. https://doi.org/10.5114/hpr.2017.65857

Ruzzier, M., Douglas, E. J., Ruzzier, M. K., and Hojnik, J. (2020). International entrepreneurial orientation and the intention to internationalize. Sustainability (Switzerland), 12(14), 1–20. https://doi.org/10.3390/su12145647

Ruzzier, M., Hisrich, R. D., and Antoncic, B. (2006). SME internationalization research: Past, present, and future. Journal of Small Business and Enterprise Development, 13(4), 476–497.

Sagiv, L., Roccas, S., Cieciuch, J., and Schwartz, S. H. (2017). Personal values in human life. Nature Human Behaviour, 1(9), 630–639. https://doi.org/10.1038/s41562-017-0185-3

Santos, F. M. (2012). A Positive Theory of Social Entrepreneurship. Journal of Business Ethics, 111(3), 335–351. https://doi.org/10.1007/s10551-012-1413-4

Savani, K., Wadhwa, M., Uchida, Y., Ding, Y., and Naidu, N. V. R. (2015). When norms loom larger than the self: Susceptibility of preference-choice consistency to normative influence across cultures. Organizational Behaviour and Human Decision Processes, 129, 70–79. https://doi.org/10.1016/j.obhdp.2014.09.001

Scherer, R. F., Adams, J. S., Carley, S. S., and Wiebe, F. A. (1989). Role Model Performance Effects on Development of Entrepreneurial Career Preference. Entrepreneurship Theory and Practice, 13(3), 53–72. https://doi.org/10.1177/104225878901300306

Schlaegel, C., and Koenig, M. (2014). Determinants of Entrepreneurial Intent: A Meta-Analytic Test and Integration of Competing Models. Entrepreneurship: Theory and Practice, 38(2), 291–332. https://doi.org/10.1111/etap.12087

Schmitt-Rodermund, E. (2004). Pathways to successful entrepreneurship: Parenting, personality, early entrepreneurial competence, and interests. Journal of Vocational Behaviour, 65(3), 498–518. https://doi.org/10.1016/j.jvb.2003.10.007

Schoon, I., and Duckworth, K. (2012). Who becomes an entrepreneur? Early life experiences as predictors of entrepreneurship. Developmental Psychology, 48(6), 1719–1726. https://doi.org/10.1037/a0029168

Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. Advances in Experimental Social Psychology, 25(C), 1–65. https://doi.org/10.1016/S0065-2601(08)60281-6

Schwartz, S. H. (2003). A Proposal for Measuring Value Orientations across Nations. Questionnaire Package of the European Social Survey, 259(290), 261.

Schwartz, S. H. (2005). Robustness and Fruitfulness of a Theory of Universals in Individual Values. Valores e Trabalho, 56–85.

Schwartz, S. H., and Bardi, A. (2001). Value hierarchies across cultures: Taking a similarities perspective. Journal of Cross-Cultural Psychology, 32(3), 268–290. https://doi.org/10.4028/www.scientific.net/AMR.250-253.1804

Schwartz, S. H., and Bilsky, W. (1987). Toward A Universal Psychological Structure of Human Values. Journal of Ftnonality and Social Psychology, 53(3), 550–562.

Schwartz, S. H., and Boehnke, K. (2004). Evaluating the structure of human values with confirmatory factor analysis. Journal of Research in Personality, 38(3), 230–255. https://doi.org/10.1016/S0092-6566(03)00069-2

Schwens, C., and Kabst, R. (2009). How early opposed to late internationalizers learn: Experience of others and paradigms of interpretation. International Business Review, 18(5), 509–522. https://doi.org/10.1016/j.ibusrev.2009.06.001

Shane, S., Locke, E. A., and Collins, C. J. (2003). Entrepreneurial motivation. Human Resource Management Review, 13(2), 257–279. https://doi.org/10.1016/S1053-4822(03)00017-2

Shinnar, R., Pruett, M., and Toney, B. (2009). Entrepreneurship Education : Attitudes Across Entrepreneurship Education : Attitudes Across Campus. Journal of Education for Business, 84(3), 151–159.

Shirokova, G., Osiyevskyy, O., and Bogatyreva, K. (2016). Exploring the intention–behaviour link in student entrepreneurship: Moderating effects of individual and environmental characteristics. European Management Journal, 34(4), 386–399. https://doi.org/10.1016/j.emj.2015.12.007

Singh, R., Chandrashekar, D., Subrahmanya, B., Hillemane, M., Sukumar, A., and Jafari-sadeghi, V. (2022). Network cooperation and economic performance of SMEs: Direct and mediating impacts of innovation and internationalisation. Journal of Business Research, 148(April), 116–130. https://doi.org/10.1016/j.jbusres.2022.04.032

Solesvik, M. Z. (2013). Entrepreneurial motivations and intentions: Investigating the role of education major. Education and Training, 55(3), 253–271. https://doi.org/10.1108/00400911311309314

Sommer, L., and Haug, M. (2011). Intention as a cognitive antecedent to international entrepreneurship-understanding the moderating roles of knowledge and experience. International Entrepreneurship and Management Journal, 7(1), 111–142. https://doi.org/10.1007/s11365-010-0162-z

Strobl, A., Kronenberg, C., and Peters, M. (2012). Entrepreneurial attitudes and intentions: Assessing gender specific differences. International Journal of Entrepreneurship and Small Business, 15(4), 452–468.

Tambunan, T. (2007). Entrepreneurship Development: Smes in Indonesia. Journal of Developmental Entrepreneurship, 12(01), 95–118. https://doi.org/10.1142/s1084946707000575

Tambunan, T. (2008). SME development, economic growth, and government intervention in a developing country: The Indonesian story. Journal of International Entrepreneurship, 6(4), 147–167. https://doi.org/10.1007/s10843-008-0025-7

Tenenhaus, M., Vinzi, V. E., Chatelin, Y. M., and Lauro, C. (2005). PLS path modeling. Computational Statistics and Data Analysis, 48(1), 159–205. https://doi.org/10.1016/j.csda.2004.03.005

Thomas, A. S., and Mueller, S. L. (2000). A case for comparative entrepreneurship: Assessing the relevance of culture. Journal of International Business Studies, 31(2), 287–301. https://doi.org/10.1057/palgrave.jibs.8490906

Thompson, E. R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. Entrepreneurship: Theory and Practice, 33(3), 669–695. https://doi.org/10.1111/j.1540-6520.2009.00321.x

Vahlne, J. E., and Johanson, J. (2020). The Uppsala model: Networks and micro-foundations. Journal of International Business Studies, 51(1), 4–10. https://doi.org/10.1057/s41267-019-00277-x

Valliere, D., and Peterson, R. (2009). Entrepreneurship and economic growth: Evidence from emerging and developed countries. Entrepreneurship and Regional Development, 21(5–6), 459–480. https://doi.org/10.1080/08985620802332723

Van Auken, H., Fry, F. L., and Stephens, P. (2006). The influence of Role models on Entrepreneurial intentions. Journal of Developmental Entrepreneurship, 11(2), 157–167.

van Tilburg, W. A. P., and Mahadevan, N. (2020). When imitating successful others fails: Accidentally successful exemplars inspire risky decisions and can hamper performance. Quarterly Journal of Experimental Psychology, 73(6), 941–956. https://doi.org/10.1177/1747021819895705

Vecchione, M., Schwartz, S., Alessandri, G., Döring, A. K., Castellani, V., and Caprara, M. G. (2016). Stability and change of basic personal values in early adulthood: An 8-year longitudinal study. Journal of Research in Personality, 63, 111–122. https://doi.org/10.1016/j.jrp.2016.06.002

Vecchione, M., Schwartz, S. H., Caprara, G. V., Schoen, H., Cieciuch, J., Silvester, J., Bain, P., Bianchi, G., Kirmanoglu, H., Baslevent, C., Mamali, C., Manzi, J., Pavlopoulos, V.,

Posnova, T., Torres, C., Verkasalo, M., Lönnqvist, J. E., Vondráková, E., Welzel, C., and Alessandri, G. (2015). Personal values and political activism: A cross-national study. British Journal of Psychology, 106(1), 84–106. https://doi.org/10.1111/bjop.12067

Wang, C. K., and Wong, P. K. (2004). Entrepreneurial interest of university students in Singapore. Technovation, 24(2), 163–172. https://doi.org/10.1016/S0166-4972(02)00016-0

Wasowska, A. (2019). Social-cognitive antecedents of new venture internationalization: The role of entrepreneur intention, self-efficacy, and positive orientation. Baltic Journal of Management, 14(3), 462–479. https://doi.org/10.1108/BJM-09-2018-0325

Watchravesringkan, K. T., Hodges, N. N., Yurchisin, J., Hegland, J., Karpova, E., Marcketti, S., and Yan, R. nan. (2013). Modeling Entrepreneurial Career Intentions among Undergraduates: An Examination of the Moderating Role of Entrepreneurial Knowledge and Skills. Family and Consumer Sciences Research Journal, 41(3), 325–342. https://doi.org/10.1111/fcsr.12014

Westman, M. (2005). The impact of short business travels on the individual, the family and the organization. In Research Companion to Organizational Health Psychology (pp. 478–491).

Yang, K. P., Hsiung, H. H., and Chiu, Y. J. (2015). The comfort zone of the value circumplex for entrepreneurship: a structural analysis. Career Development International, 20(6), 663–683. https://doi.org/10.1108/CDI-07-2014-0087

Yeoh, P. L. (2004). International learning: Antecedents and performance implications among newly internationalizing companies in an exporting context. International Marketing Review, 21(4–5), 511–535. https://doi.org/10.1108/02651330410547171

Yijälä, A., Lönnqvist, J., Jasinskaja-Lahti, I., and Verkasalo, M. (2012). Values as predictors of anticipated socio-cultural adaptation among potential migrants from Russia to Finland. Journal of Community & Applied Social Psychology, 22(2), 95–110.

Zahra, S. A., Ireland, R. D., and Hitt, M. A. (2000). International Expansion by New Venture Firms: International Diversity, Mode of Market Entry, Technological Learning, and Performance. Academy of Management Journal, 43(5), 925–950. https://doi.org/Doi 10.2307/1556420

Zahra, S. A., Korri, J. S., and Yu, J. F. (2005). Cognition and international entrepreneurship: Implications for research on international opportunity recognition and exploitation. International Business Review, 14(2), 129–146. https://doi.org/10.1016/j.ibusrev.2004.04.005

Zhou, L. (2007). The effects of entrepreneurial proclivity and foreign market knowledge on early internationalization. Journal of World Business, 42(3), 281–293. https://doi.org/10.1016/j.jwb.2007.04.009

Zozimo, R., Jack, S., and Hamilton, E. (2017). Entrepreneurial learning from observing role models. Entrepreneurship and Regional Development, 29(9–10), 889–911.

Appendix

Table 3.7: Personal values scale PVQ-40 (Schwartz, 2003)

Here we briefly describe some people. Please read each description and think about how much each person is or is not like you. Please thick/ mark the box to the right that shows how much the person in the description is like you.

Each number represents your opinion regarding the statement as follows:

1. Not like me at all
2. Not like me
3. Neutral
4. Like me
5. Very much like me

	Description
1	Thinking up new ideas and being creative is important to her/him. (S)he likes to do things in his own original way
2	It is important to her/him to be rich. (S)he wants to have a lot of money and expensive things.
3	(S)he thinks it is important that every person in the world be treated equally. (S)he wants justice for everybody, even for people (s)he doesn't know.
4	It's very important to her/him to show his abilities. (S)he wants people to admire what (s)he does.
5	It is important to her/him to live in secure surroundings. (S)he avoids anything that might endanger his safety.
6	(S)he thinks it is important to do lots of different things in life. (S)he always looks for new things to try.
7	(S)he believes that people should do what they're told. (S)he thinks people should follow rules at all times, even when no-one is watching.
8	It is important to her/him to listen to people who are different from her/him. Even when (s)he disagrees with them, (s)he still wants to understand them.

9	(S)he thinks it's important not to ask for more than what you have. (S)he believes that people should be satisfied with what they have.
10	(S)he seeks every chance (s)he can to have fun. It is important to her/him to do things that give her/him pleasure.
11	It is important to her/him to make his own decisions about what (s)he does. (S)he likes to be free to plan and to choose his activities for her/himself.
12	It's very important to her/him to (s)help the people around her/him. (S)he wants to care for other people.
13	Being very successful is important to her/him. (S)he likes to impress other people.
14	It is very important to her/him that his country be safe from threats from within and without. (S)he is concerned that social order be protected.
15	(S)he likes to take risks. (S)he is always looking for adventures.
16	It is important to her/him always to behave properly. (S)he wants to avoid doing anything people would say is wrong.
17	It is important to her/him to be in charge and tell others what to do. (S)he wants people to do what (s)he says.
18	It is important to her/him to be loyal to his friends. (S)he wants to devote her/himself to people close to her/him.
19	(S)he strongly believes that people should care for nature. Looking after the environment is important to her/him.
20	Religious belief is important to her/him. (S)he tries hard to do what his religion requires.
21	It is important to her/him that things be organized and clean. (S)he doesn’t want things to be a mess.
22	(S)he thinks it's important to be interested in things. (S)he likes to be curious and to try to understand all sorts of things.
23	(S)he believes all the worlds’ people should live in harmony. Promoting peace among all groups in the world is important to her/him.

24	(S)he thinks it is important to be ambitious. (S)he wants to show how capable (s)he is.
25	(S)he believes it is best to do things in traditional ways. It is important to her/him to follow the customs (s)he has learned.
26	Enjoying life's pleasures is important to her/him. (S)he likes to 'spoil' her/himself.
27	It is important to her/him to respond to the needs of others. (S)he tries to support those (s)he knows.
28	It is important to her/him to be obedient. (S)he believes (s)he should always show respect to his parents and to older people.
29	(S)he wants everyone to be treated justly, even people (s)he doesn't know. It is important to her/him to protect the weak in society.
30	(S)he likes to take risks. (S)he is always looking for adventures.
31	(S)he tries hard to avoid getting sick. Staying (s)healthy is very important to her/him.
32	Getting ahead in life is important to her/him. (S)he strives to do better than others.
33	Forgiving people who might have wronged her/him is important to her/him. (S)he tries to see what is good in them and not to hold a grudge.
34	It is important to her/him to be independent. (S)he likes to rely on her/himself.
35	Having a stable government is important to her/him. (S)he is concerned that the social order be protected.
36	It is important to her/him to be polite to other people all the time. (S)he tries never to disturb or irritate others.
37	(S)he really wants to enjoy life. Having a good time is very important to her/him.
38	It is important to her/him to be humble and modest. (S)he tries not to draw attention to her/himself.
39	(S)he always wants to be the one who makes the decisions. (S)he likes to be the leader.
40	It is important to her/him to adapt to nature and to fit into it. (S)he believes that people should not change nature.

Table 3.8: International Entrepreneurial Intention scale (based on Thompson, 2009)

Please thick/mark the options box after each statement to indicate your agreement or disagreement.

Each number represents your opinion regarding the statement as follows:

1. Very untrue
2. Untrue
3. Slightly untrue
4. Neutral
5. Slightly true
6. True
7. Very true

	Statements
1	I intend to start an international company in the future
2	I look for start-up opportunities that are foreign or international
3	I spend time on reading/learning about how to start an international firm

Table 3.9: Entrepreneurial Intention scale (based on Thompson, 2009)

Please thick/mark the options box after each statement to indicate your agreement or disagreement.

Each number represents your opinion regarding the statement as follows:

1. Very untrue
2. Untrue
3. Slightly untrue
4. Neutral
5. Slightly true
6. True
7. Very true

	Statements
1	Intend to set up a company in the future
2	Plan your future carefully*
3	Read business newspapers*
4	Never search for business start-up opportunities (R)
5	Read financial planning books*
6	Are saving money to start a business
7	Do not read books on how to set up a firm (R)
8	Plan your finances carefully*
9	Have no plans to launch your own business (R)
10	Spend time learning about starting a firm

Items appeared as a single block in the order given. Those marked with an asterisk are distracter items that act as red herrings and are not to be included in scale analyses. Items marked (R) are reverse coded in scale analyses.

Table 3.10: Partial Least Squares (PLS) regression results without Entrepreneurial Intention as control variable

Variable	Beta	p-value
Age	-0.032	.490
Gender	-0.171	<0.001***
Entrepreneurial Parents	0.057	.205
Entrepreneurial Program	0.067	.147
Openness to Change	0.263	< 0.001***
Self-Enhancement	0.105	.052*
Conservation	-0.007	.903
Self-Transcendence	-0.004	.954
Entrepreneurial Parents * Openness to Change	0.047	.404
Entrepreneurial Parents * Self-Enhancement	-0.03	.538
Entrepreneurial Parents * Conservation	0.111	.045**
Entrepreneurial Parents * Self-Transcendence	-0.06	.356
Entrepreneurial program * Openness to Change	-0.03	.621
Entrepreneurial program * Self-Enhancement	0.023	.657
Entrepreneurial program * Conservation	-0.013	.830
Entrepreneurial program * Self-Transcendence	0.001	.987

*** p < .01; ** p < .05; * p < 0.10

Table 3.11: p-value of t-test comparing personal values between ages

Variable	Age (compared to the 18-year-old group)			
	19 (N = 129)	20 (N = 124)	21 (N = 61)	22 (N = 16)
Benevolence	.802	.738	.891	.945
Universalism	.297	.259	.379	.415
Self-direction	.998	.932	.528	.142
Stimulation	.406	.734	.742	.193
Hedonism	.964	.882	.318	.890
Achievement	.544	.544	.255	.279
Power	.278	.774	.990	.398
Security	.425	.997	.918	.467
Conformity	.266	.068*	.175	.547
Tradition	.595	.332	.231	.193

*** p < .01; ** p < .05; * p < 0.10

The majority (95.60%) of the students in the dataset is within the range of 18 – 22 years old. We group students into five groups according to their ages (from 18 to 22).

We run t-test to test whether the average scores of each group are different from those of the 18-year-old group.

The lower the p-value, the more likely that there is a significant difference between the two groups. The large p-values in this table shows that the differences between these groups are insignificant.

Chapter 4: Stimulating international entrepreneurial intention – the mechanism of motivational cultural intelligence

Tùng Thanh Phan, Johanna Vanderstraeten, Hendrik Slabbinck

Abstract

Despite the relevance of international entrepreneurship, research on entrepreneurs' intention to internationalize their business in the future—international entrepreneurial intention (IEI)—is still rudimentary and searching for a distinct theoretical ground that incorporates international knowledge and international experience, two factors known to impact IEI. Motivational cultural intelligence (MCQ), which applies the expectancy-value theory of motivation in international and cross-cultural settings, is a theoretically suitable mechanism to bind these factors and simultaneously precedes IEI. We hypothesize that MCQ mediates the impact of international experience and international knowledge on IEI, and tested this hypothesis on a dataset of 473 Belgian participants who intended to found an entrepreneurial business yet neither have done so nor are in the process of doing so. The results of structural equation models fully support our hypothesis. This paper contributes to international entrepreneurial intention literature by developing a theory that combines motivation theory with entrepreneurs' intention to internationalize their businesses. Based on the expectancy-value theory of motivation, our results suggest that stimulating international entrepreneurship requires more than just improving entrepreneurs' confidence and capabilities in multicultural situations; it also requires appealing to the irrational value aspect of motivation.

Keywords: motivational cultural intelligence, international entrepreneurial intention, GUESSS, motivational theory

1. Introduction

Researchers and policymakers have long acknowledged that international entrepreneurship brings about economic and social well-being (Agarwal et al., 2007; Criaco et al., 2021; Hessels & van Stel, 2011; Hessels & Stel, 2007) and have therefore sought to unravel the antecedents of entrepreneurs' intention to internationalize their businesses—also known as international entrepreneurial intention (IEI) (e.g., Jannesari, 2022; Jie & Harms, 2017).

Adding to the endeavour of understanding antecedents of IEI, we utilize the concept of motivational cultural intelligence (MCQ). MCQ describes one's ability to "*direct attention and energy toward cross-cultural situations based on intrinsic interest [...] and confidence in their cross-cultural effectiveness*" (Ang et al., 2007, p. 338). Researchers have identified the role of motivation in explaining intention (Bird, 2015; Kaczmarek et al., 2015), as well as the relationship between cultural intelligence and international-related behaviours (Fang et al., 2018). MCQ, as the combination of motivation and cultural intelligence, has been shown to positively impact intention and performance in culturally diverse environments (Jannesari, 2022; Presbitero, 2017; Song et al., 2021; Zhang and Hussain, 2021).

In this paper, we go further, by arguing that MCQ not only stimulates IEI but also acts as a theoretical framework that explains the impact of factors such as international experience and international knowledge on IEI. Prior studies have also shown that international knowledge and international experience positively affect entrepreneurs' intention to engage in cross-cultural activities and international businesses (e.g., Coviello, 2015; Kirwan et al., 2019; Oviatt & Mcdougall, 2005). Building on this research, we argue that international knowledge and international experience impact MCQ (Fang et al., 2018) and that MCQ mediates international knowledge and international experience on entrepreneurs' intention to internationalize their businesses. We tested our hypotheses using a database of 473 university students who had no experience in entrepreneurship.

Theoretically, this paper contributes to several streams of research. First, we expand the topic of IEI. As IEI is still a relatively underdeveloped topic of research, studies are still expanding upon the antecedents of this phenomenon (e.g., Jannesari, 2022; Jie and Harms, 2017). We build our arguments based on the known positive impact of international experience and international knowledge on internationalization (Egri and Herman, 2000; Oviatt and

Mcdougall, 2005; Renko et al., 2016; Ruzzier et al., 2020; Sommer and Haug, 2011; Zhou, 2007) and argue for positive relationships between these factors and intention to internationalize future business. Second, we recognize that the research topic of IEI has yet to establish a theoretical framework that can address both the intention and the internationalization aspect of IEI. By using the theory of motivation (Eccles and Wigfield, 2002) and cultural intelligence (Ang and Van Dyne, 2008) to address these two aspects of IEI respectively, we propose MCQ – which is an application of motivational theory in cultural intelligence theory (Ang and Van Dyne, 2008) – as a theoretical framework to further study IEI. Both of our theoretical contributions are supported by our results. Not only that international knowledge and experience have a significant impact on IEI, but these impacts are also fully mediated by MCQ.

Finally, we add to the effort to stimulate international entrepreneurship by turning our arguments and results into practical implications. In particular, the theoretical framework of MCQ provides new perspectives on stimulating international entrepreneurship. Motivation is constituted by the expectation of success (expectancy) and personal interest (value) (Eccles and Wigfield, 2002). Therefore, policymakers should not only focus on the conventional methods of improving international competence via international-themed courses and activities, but also stimulate the inherent interest and curiosity toward cross-national interaction and business activities.

2. Literature review

2.1. Impact of cultural intelligence on international entrepreneurial intention

Definition of international entrepreneurship and international entrepreneurial intention

Studies have shown that firms that internationalize not only have better performance (Criaco et al., 2022), they also increase the economic and social capital of the countries and regions they originate from (Agarwal et al., 2007; Hessels & van Stel, 2011; Hessels & Stel, 2007). The relevance of international entrepreneurship in the current era is reinforced by technological and logistics infrastructures, which allow entrepreneurial firms to overcome

internationalization barriers more easily, regardless of where they are in the business lifecycle (Vahlne and Johanson, 2020).

A deciding factor in whether a firm internationalizes or not is an entrepreneur's individual qualities. Prior research has already identified that these individual qualities are relevant to both entrepreneurial activities (López-Núñez et al., 2020; McMullen and Shepherd, 2006; Neneh, 2019; Shane and Venkataraman, 2000) and to the internationalization process itself (Knight and Cavusgil, 2004; Oviatt and Mcdougall, 2005). The focus of studies on internationalization to date, however, has been on firm-level competencies and how they relate to internationalization intentions or has been on entrepreneurs' competence and experience after they have internationalized their businesses. This focus overlooks entrepreneurs' individual-level qualities and characteristics as well as their role in facilitating the internationalization of their businesses (Coviello, 2015).

The focus of this paper is therefore on the individual level. We aim to help explain entrepreneurs' intention to internationalize their businesses in the future. Psychology and entrepreneurship research have long recognized that intention is an effective predictor of actual behaviour (Krueger et al., 2000; Sommer and Haug, 2011). The same is true in international entrepreneurship studies, which have shown that personality and individual differences are central to explaining international entrepreneurial intention (e.g., Ammeer et al., 2022; Middermann, 2020; Ruzzier et al., 2020). In this paper, we continue this line of research on individual entrepreneurs, yet take it further by arguing that motivational cultural intelligence (MCQ) drives entrepreneurs' intention to internationalize.

Cultural intelligence and motivational cultural intelligence

Cultural intelligence (CQ) is defined as an "individual's capability to function and manage effectively in culturally diverse settings" (Ang et al., 2007, p. 337). In the past few decades, CQ has been recognized as an individual capability that is crucial for examining cross-cultural relationships (Fang et al., 2018). This broad concept is divided into four types of cultural intelligence: cognitive, metacognitive, behavioural, and motivational. Among these four aspects, the motivational aspect of cultural intelligence is built upon the expectancy-value theory of motivation (Ang et al., 2007; Ang and Van Dyne, 2008a; Eccles and

Wigfield, 2002), and is directly relevant to the topic of interest in our paper – the *intention* to internationalize future business (Bird, 2015; Kaczmarek et al., 2015).

The expectancy-value theory of motivation considers motivation as having two primary components. The first is the expectation of success, which is one's confidence in succeeding in an activity. The second is the perceived value of performing tasks, which satisfies one's own interest and is reflected in the comfort, enjoyment, and utility one gains from an activity (Eccles and Wigfield, 2002). When expectation and value are combined, an individual perceives a task as important and interesting, yet they can achieve, and is motivated to engage in it.

Prior studies have shown that motivation has a determining influence on intentions—including entrepreneurial intentions (e.g., Wang et al., 2022) and the likelihood of placing oneself in international environments (e.g., Yue & Lu, 2022). With the theory of motivation as a base, MCQ adds to it the element of a culturally diverse setting and is, therefore, a highly suitable theory for studying entrepreneurs' intention to internationalize future businesses. Combining the two components of motivation and cultural intelligence in MCQ therefore increases entrepreneurs' motivation to internationalize.

The effect of MCQ on international entrepreneurial intention

Internationalizing a business often requires entrepreneurs to participate in multicultural settings (Oviatt and McDougall, 2005; Renko et al., 2016). Entrepreneurs with high MCQ—reflected in their motivation to participate in such settings—therefore have greater intention to internationalize their business.

Prior studies have shown that MCQ can promote internationalization. First, individuals with high MCQ have an intrinsic interest in cross-cultural settings (Ang et al., 2007; Van Dyne et al., 2012) and the confidence to engage with individuals in these settings. Because cross-cultural interactions involve novelty and risk (Peng et al., 2015), individuals need the confidence and motivation to engage in them. Second, individuals with a positive attitude and the confidence to successfully function in these environments have a greater intention to overcome such barriers and exploit the cultural complications inherent in these situations to their advantage, such as to internationalize their business.

Because they have an innate interest in other cultures and are confident about navigating within them, people with high MCQ are better at observing and finding business opportunities in culturally diverse settings (Chen et al., 2012; Templer et al., 2006). In addition, they are better at forging social networks composed of people with diverse cultural backgrounds, and they can successfully adapt and integrate themselves within these networks (Cheung et al., 2022; Song et al., 2021). The better communication and networking that result from positioning themselves in networks of different cultural backgrounds (Presbitero, 2017) offer them more opportunities for setting up a business in a foreign market (Schwens and Kabst, 2009; Zahra et al., 2000).

Altogether, we hypothesize that individuals with higher MCQ will have greater international entrepreneurial intention.

Hypothesis 1: Motivational cultural intelligence is positively related to international entrepreneurial intention.

2.2. The impact of international exposure and knowledge on international activities, and the mediating role of cultural intelligence

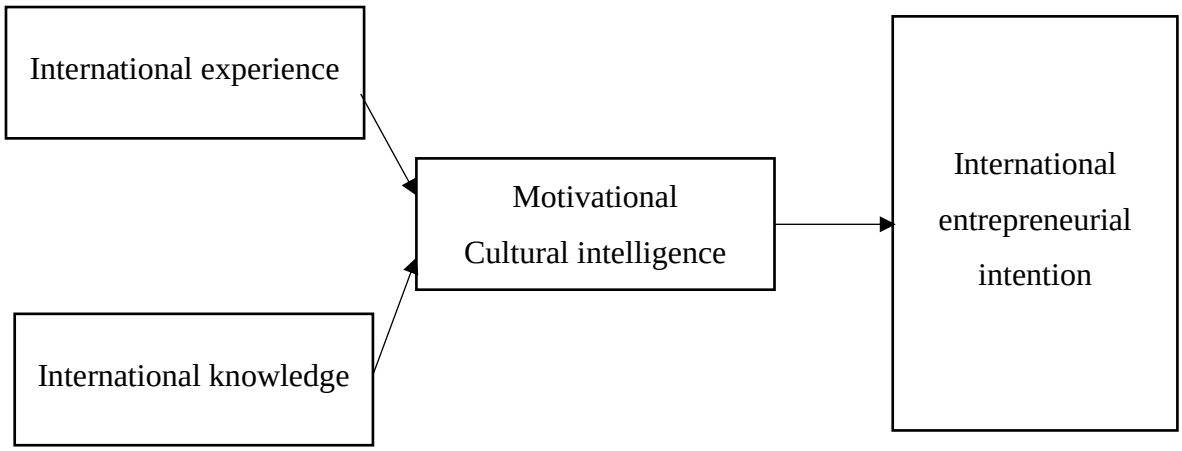
MCQ, like other aspects of cultural intelligence, is considered to be a "state-like" psychological factor rather than a "trait-like" one (Ang and Van Dyne, 2008a). Dissimilar to trait-like personal aspects such as personal values (Schwartz, 2003), state-like aspects are malleable and are contingent on the person's behaviour and surrounding environment (Key et al., 2022). In particular, studies have explored international experience and international knowledge as important antecedents of MCQ (Fang et al., 2018).

International experience and international knowledge have been recognized as major antecedents of internationalization (Zahra et al., 2005) because they help an entrepreneur (1) recognize opportunities in an international market, which creates and nurtures the initial intention to internationalize (Oviatt and Mcdougall, 2005; Ruzzier et al., 2020; Sommer and Haug, 2011; Zhou, 2007); and (2) overcome the initial challenges of entering a foreign market and mitigating the risks international businesses face when entering these markets, such as the liability of foreignness (Egri and Herman, 2000; Renko et al., 2016).

International experience is positively connected to both the value and expectancy aspects of MCQ. This experience primarily comes from stays abroad—both for work (Shannon and Begley, 2008) and non-work (Tarique and Takeuchi, 2008). Regarding the value aspect of motivation, individuals who spend time abroad are more likely to develop an inherent curiosity, an open attitude, and a willingness to be exposed to culturally diverse situations (Shannon and Begley, 2008; Wood et al., 2014). They are often more interested in reaching out to and communicating with foreigners (Cheung et al., 2022). They also tend to solve culturally based problems and complications on their own (Cheung et al., 2022; Tarique and Takeuchi, 2008). In addition to nourishing an individual's curiosity and interest in culturally diverse settings, international experience also improves one's self-efficacy for interacting in such settings (Cheung et al., 2022; Tarique and Takeuchi, 2008; Wood et al., 2014), which are representations of the expectancy aspect of motivation. The more experience a person has (e.g., the longer they stay abroad), the more familiar they are with these settings and the less likely they are to see multicultural situations as an obstacle. Instead, such situations are perceived as normal, and individuals with more experience are less hesitant to jump into them.

While international experience is connected to both the value and expectancy aspects of MCQ, international knowledge affects only the expectancy aspect of MCQ. International knowledge refers to one's awareness and acknowledgment of foreign cultures (Macnab, 2012), their understanding of prejudice and stereotypes and how to mitigate them (Buchtel, 2014), and their preparedness for overcoming culture shocks and adjusting their behaviours accordingly (Kamal Abdien and Jacob, 2019). Such knowledge can be gained without visiting or staying in foreign countries—for example, by enrolling in international-themed courses and training (Buchtel, 2014; Bücker and Korzilius, 2015; Eisenberg et al., 2013; Kamal Abdien and Jacob, 2019) or participating in international-themed activities (Macnab, 2012). The knowledge base these activities provide acts as a reference point for navigating and performing effectively in complicated multicultural situations (Kamal Abdien and Jacob, 2019). Individuals with extensive international knowledge will therefore be less intimidated by unfamiliar situations involving unfamiliar cultures. In other words, their expectation of success in multicultural situations is enhanced, represented by a higher MCQ.

Figure 4.1: Conceptual model of the second essay



Having international experience and international knowledge, in addition to accounting for the effects of MCQ on IEI, leads us to propose that MCQ mediates international experience and international knowledge of IEI. MCQ as a mediator of intention and behaviour has precedent. Previous studies such as Presbitero (2017) and Ward and Fischer (2008) used MCQ as a mediator to explain how individuals adjust their behaviour in international-themed situations. More relevantly, Jannesari (2022) used social-cognitive theory and MCQ as a mediator to explain how parents' socioeconomic status impacts their children's IEI. While having a somewhat similar conceptual model to Jannesari (2022) – using MCQ as a mediator, we focus primarily on the facets of expectancy-value theory of motivation, rather than exploring the effect of social-cognitive factors.

Taken together, we hypothesize that MCQ mediates both international experience and international knowledge of IEI:

> *Hypothesis 2: Motivational cultural intelligence mediates the impact of international experience on international entrepreneurial intention.*

> *Hypothesis 3: Motivational cultural intelligence mediates the impact of international knowledge on international entrepreneurial intention.*

3. Method

3.1. Dataset

To test our hypotheses, we utilize a dataset of 2,297 responses from Belgian respondents. Belgium is classified as an innovation-driven economy (Kelley et al., 2016). Within such economies, entrepreneurship and internationalization are important sources of ideas, innovations, and economic developments; yet, entrepreneurship and internationalization are less frequent in innovation-driven economies, compared to countries of lower economic development categorizations (Kelley et al., 2016). By exploring the formation of IEI in Belgium, we add to the attempt to understand and stimulate international entrepreneurial activities.

To collect data for this study, we collaborated with the Global University Entrepreneurship Spirit Students' Survey (GUESSS) project in 2020. GUESSS is an international project focusing on students' entrepreneurial intentions and the entrepreneurial intention and activities of universities all over the world[6]. We invited students to voluntarily participate via emails or digital teaching platforms such as Blackboard. To stimulate participation, we organized a raffle. Winners of the raffle won gift cards with values ranging from 25 to 50 euros. At the end, we collected 2,297 responses.

To identify a sample relevant to investigating our hypotheses on participants' intention to internationalize a business in the future, we applied several filters to GUESSS. Based on their responses to the GUESSS national survey, 2,297 respondents were placed into one of three categories: "active entrepreneurs" (students who have already founded a business), "nascent entrepreneurs" (students who are in the process of founding a business), and "non-entrepreneurs" (students who have no experience in entrepreneurship). Since we were interested only in entrepreneurs' intentions and wanted to eliminate any effects on respondents' knowledge and experience gained from operating a business, our dataset is

[6] https://www.guesssurvey.org/

limited to “non-entrepreneur” students. These students were asked whether they intended to found an entrepreneurial business in the future (either immediately after graduating or 5 years after graduating).

In total, 491 students answered yes to either question. We excluded eight responses that had missing dependent-variable values. Of the remaining 483 responses, we tested whether the missing values were random (Little, 1988) using the “mcar_test()” function in the “naniar” R package (Tierney and Cook, 2018). The result was insignificant ($p = .186$), indicating that the null hypothesis of “missing values are completely at random” is not rejected. We removed 10 additional responses that had missing independent-variable values to arrive at our final sample of 473 complete responses.

3.2. Dependent variables

The dependent variable is the intention to internationalize an entrepreneurial business in the future. Intention is captured as a dichotomous choice, with the value of “1” if a participant intended to internationalize, and “0” if not. Prior studies of internationalization and entrepreneurial intention have shown that similar methods are effective at capturing intention (e.g., Amorós et al., 2016; Bogatyreva et al., 2019).

3.3. Independent variables

For MCQ, we used the scale that Ang et al., (2007) designed and that Van Dyne et al., (2008) later validated. The items in the scale are “*I enjoy interacting with people from different cultures,” “I am confident that I can socialize with locals in a culture that is unfamiliar to me,” “I am sure I can deal with the stresses of adjusting to a culture that is new to me,” “I enjoy living in cultures that are unfamiliar to me,”* and *“I am confident that I can get accustomed to the shopping conditions in a different culture.”* The Cronbach’s Alpha of the scale is .86 (95% confidence interval .85–.88).

We operationalized international knowledge by quantifying—with multiple-choice questions—respondents’ participation in international-themed activities, both curricular and extracurricular, because both have been recognized as sources of international knowledge (Bandura, 1977; Eisenberg et al., 2013; Macnab, 2012; Shannon and Begley, 2008). Respondents could indicate which of eight activities they had participated in, ranging from

curricular activities (e.g., international-themed compulsory or elective courses or short-term programs) to extracurricular activities (e.g., actively interacting with international students, supporting refugees, doing international volunteer work, etc.). The final score for respondents' international knowledge is the number of options they chose.

Table 4.1: Demographic statistics of the dataset used in the second essay.

Variables		Number of students (N = 473)
Gender		
	Male	241
	Female	232
Age		
	18-23	388
	Older than 23	68
	Unanswered	17
Year of enrolment		
	2020 (first-year student)	144
	2019 (second-year student)	104
	2018 (third-year student)	137
	2017(forth-year student)	48
	2016 (fifth-year student)	25
	Before 2016	12
	Unanswered	3

Finally, we quantified respondents' experience in international environments as the number of months they had lived away from their home country. The more time they spent abroad, the more respondents were exposed to cultural differences and the more experience they had in international and multicultural settings (Crowne, 2008; Li et al., 2013). The highest possible value for time spent abroad is 36 months.

3.4. Method of data analysis

Because our dependent variable is dichotomous, we tested our hypotheses with a set of probit models. We also enhanced the accuracy of our estimates of the indirect effects of knowledge and experience on IEI via MCQ by carrying out 5,000 bootstrap samples to obtain 95% confidence intervals of the coefficients (Zhao et al., 2010) using the "sem()" function from the "lavaan" package (Rosseel, 2012) in R software (R Core Team, 2020).

4. Results

4.1. Preliminary analyses

Table 4.1 and 4.2 summarizes the descriptive statistics and bivariate correlations between variables. The variables are slightly correlated, with bivariate correlation values not exceeding .20. Additionally, before testing the structural equation model, we ran the measurement model for MCQ, testing one-factor confirmatory factor analysis with two correlated residuals. The measurement model returns a good fit (CFI = .994, TLI = .984, RMSEA = .066, SRMR = .017, CI_{90} = [.019, .116]).

4.2. Structural equation analyses

The result of the mediating model and bootstraps shows that MCQ has a positive and significant impact on IEI (b = 0.21, CI_{95} = [0.07, 0.37]). The first hypothesis is therefore supported. As for hypotheses 2 and 3 on the mediating effect of international experience and intentional knowledge, our results show that MCQ fully mediates both. While the direct effect of both variables is not significantly associated with IEI (b = -0.00 and 0.09, CI_{95} = [-0.01, 0.02] and [-0.00, 0.21] for international experience and international knowledge, respectively), both variables have a significant impact on MCQ, and their total indirect

effects are positive and significant (b = 0.02 and 0.11, CI_{95} = [0.01, 0.03] and [0.05, 0.17] for international experience and international knowledge, respectively).

As entrepreneurial experience is operationalized by the variable of months staying abroad, the result can be interpreted as every month living abroad increases the MCQ score by 0.02. While the effect size is numerically small, the number of months staying abroad can quickly increase if the students participate e.g., an exchange program or studying abroad. For example, Figure 4.2 shows how motivational cultural intelligence changes after 6, 12, 24, and 36 months of staying abroad.

Meanwhile, international knowledge is represented by the international-themed activities in which the students participate Therefore, the coefficient of international knowledge in our SEM can be interpreted as for every international-themed activity in which the student participates, the score of MCQ is increased by 0.11. This result shows that providing international-themed activities (such as international-themed programs, and opportunities to interact with international culture) can be a highly effective alternative to sending students abroad, as participation in one activity is as effective as 5.5 months of staying in another country.

All in all, the results show that MCQ fully mediates the effect of both international knowledge and international experience on IEI (Zhao et al., 2010). Hypotheses 2 and 3 are therefore supported.

Table 4.22: Descriptive statistics and bivariate correlation

Variable	Mean	SD	(1)	(2)	(3)
(1) MCQ	5.51	1.07			
(2) International experience	4.13	9.00	.19 ***		
(3) International knowledge	1.17	1.47	.18 ***	.20 ***	
(4) IEI	0.81	0.39	.16 ***	.04	.10 *

*** $p < .001$; ** $p < .01$; * $p < .05$

Table 4.3: Results from Structural Equation Models

	Coefficient (95% confidence interval)	
	Model 1	**Model 2**
Direct effect		
Motivational Cultural Intelligence		0.21 [0.07, 0.37] **
International Experience	0.00 [-0.01, 0.02]	-0.00 [-0.01, 0.02]
International Knowledge	0.11 [0.02, 0.22] *	0.09 [-0.00, 0.21]
Indirect effect		
International Experience → MCQ		0.02 [0.01, 0.03] ***
International Knowledge → MCQ		0.11 [0.05, 0.17] ***

**** p < .001; ** p < .01; * p < .05.*

Figure 4.2: The relationship between MCQ and the number of months staying abroad and participating in international-themed activities

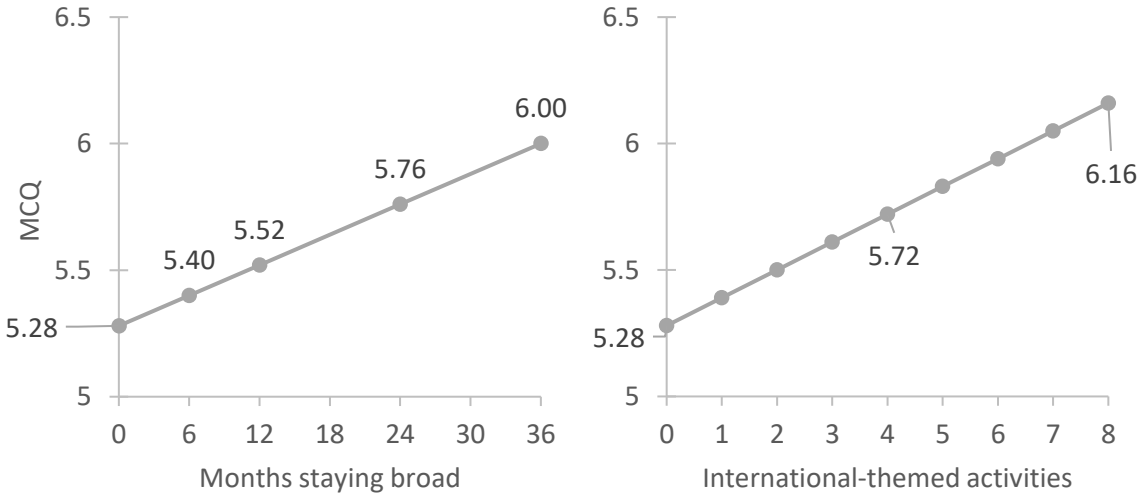
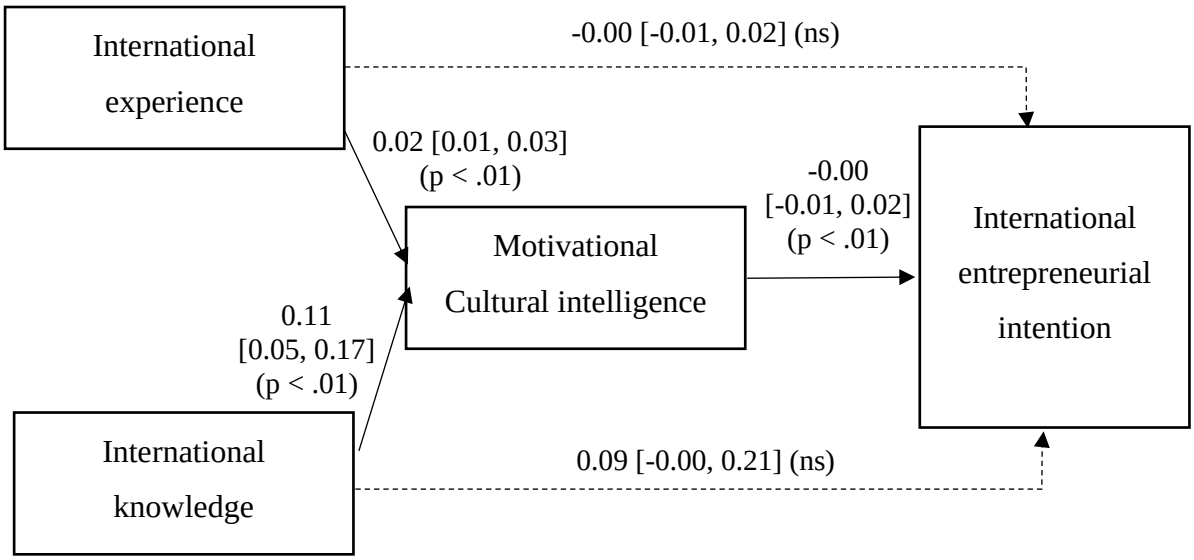


Figure 4.3: Results of the SEM, visualized on the conceptual model of the essay



5. Discussion

Our paper contributes theory to several underdeveloped topics of research. First, by specifically focusing on entrepreneurs' intention to internationalize a future business, our paper adds important knowledge to the field of international entrepreneurship, which is dominated by research on firms that have already internationalized or been established. This post-founding, post-internationalization focus has several shortcomings. First, it is vulnerable to "survivor bias," in which the only stories of internationalization that are recorded and analysed are those that have finished their internationalization (Jiang et al., 2020). Lessons learned from these internationalization attempts may not provide an accurate assessment of the difficulties and failures that entrepreneurs have to overcome in the internationalization process. Second, because founding and internationalizing a firm provides its founders with knowledge and experience (Bai et al., 2016; Patricia Phillips Mcdougall and Loper, 2015), the characteristics of these successful post-internationalization entrepreneurs are not necessarily applicable to potential entrepreneurs who have yet to found or internationalize their firms. Consequently, the lessons learned may not help *potential* international entrepreneurs. Our approach—examining entrepreneurs' intention to internationalize businesses in the future, represented by IEI—addresses these shortcomings

and adds important knowledge about a wider range of (potential) entrepreneurs that researchers, policymakers, and educators can use (Coviello, 2015).

Our paper adds to the IEI literature in various ways. We recognize that IEI is still a rather underdeveloped topic, and the concept of IEI has yet to be explicitly distinguished with entrepreneurial intention (EI)–a much more well-developed concept in entrepreneurship literature (Liñán and Fayolle, 2015). This comes from the argument that EI and IEI have major overlaps. For example, it is arguable that the intention to found an entrepreneurial business (EI) necessarily precedes the intention to internationalize future entrepreneurial firms (IEI). To address this overlap between EI and IEI, in this study we only examine students who are identified as having the intention to found business, effectively making the sample size homogenous in terms of EI. By exploring the variation and antecedents of IEI among this homogenous sample size, we stress the dissimilarities between EI and IEI. Effectively, we bolster the necessity of treating IEI as a separate research topic, rather than categorizing IEI under the umbrella term of EI.

Additionally, the underdeveloped state of IEI leads to a lack of understanding of the antecedents of IEI. This paper builds upon the knowledge of antecedents of entrepreneurship, intention, and internationalization to explore the drivers of IEI. International experience–which is represented by studying, living, or working abroad (Cheung et al., 2022; Shannon and Begley, 2008; Tarique and Takeuchi, 2008; Wood et al., 2014), and international knowledge–represented by participation of international-themed activities (Buchtel, 2014; Bücker and Korzilius, 2015; Eisenberg et al., 2013; Kamal Abdien and Jacob, 2019; Macnab, 2012). Due to the nature of these two variables–the former involves going abroad and the latter is restricted to domestic activities, they are mutually exclusive. Therefore, while both variables involve international-related knowledge, we do not risk including the same concept twice in our model.

Another theoretical contribution of our research is to link cultural intelligence, theories of motivation, and entrepreneurs' intention to internationalize businesses in the future, thus adding greater relevancy to research on international entrepreneurship and providing a theoretical base for IEI research. Research studying the antecedents of IEI is becoming less constrained by generic theories of intention, such as the theory of planned behaviour (Ajzen,

1991), and has begun to pay greater attention to the impact of such international factors as global mindset and cultural intelligence. For example, Jie and Harms (2017) utilized the Theory of planned behaviour but recognized the role of global mindset and cultural intelligence in predicting IEI. Later, Jannesari (2022) used cultural intelligence to mediate the impact of parents' social status on the intention to internationalize, utilizing the social-cognitive theory. Despite this new shift in theoretical approach, research on IEI lacks a solid theoretical base to address both the specific requirements of internationalization (Zahra et al., 2005) and the psychological theme of intention (Bird, 2015; Politi et al., 2021). We highlight how the motivation and the cultural intelligence aspects of MCQ relate to the intention and internationalization aspects of IEI respectively, and propose MCQ as a theoretical framework for antecedents of IEI. We operationalize this theoretical role by having MCQ mediates the impact of international experience and international knowledge on IEI. The results of our structural equation models support our theoretical proposition. The impacts of international experience and knowledge on IEI are both completely mediated by MCQ. These results show that MCQ is an effective mechanism to unify the impacts of antecedents of IEI.

Apart from contributing to the theoretical development of the IEI research topic, we provide practical suggestions for the stimulation of international entrepreneurship. In particular, efforts to stimulate international entrepreneurship can be examined through the lens of the expectancy-value theory of motivation (Eccles and Wigfield, 2002). The conventional approach to stimulating international entrepreneurship involves improving international business competence via courses or exposure to international businesses (Eisenberg et al., 2013). By understanding the mechanism of MCQ, we suggest that these measures can be expanded in two ways. First, policymakers can explore methods to boost the inherent curiosity and willingness to engage in cross-cultural, international situations. Second, methods to stimulate international entrepreneurship are not necessarily restricted to business and economics majors. Methods such as increasing linguistic competence, or creating a culturally diverse environment (e.g., Fischer, 2011; Presbitero, 2017; Shannon and Begley, 2008) can also boost MCQ, and subsequently stimulate IEI.

By making interactions with a diversity of cultural values the norm, internationalization will become a more commonly accepted approach when founding businesses (Adekiya and

Ibrahim, 2016; Hong and Sullivan, 2013). Individuals who lack competence in internationalization can, therefore, be motivated irrationally by their values rather than by skills and self-efficacy (Eccles and Wigfield, 2002).

We recognize several limitations of our paper, which provide opportunities for researchers to investigate in future studies. First is the representativeness of the data. The dataset was limited to Belgian students, and the results should therefore be interpreted and generalized with this sample in mind. While being a small country with a limited domestic market (Sieger et al., 2016), Belgium is a member of several economic communities—such as the European Union and the Benelux Union (Belgium, Netherlands, Luxemburg). These relationships with neighbouring countries lower the geographical and institutional distances and allow for entrepreneurs in Belgium to conduct business with surrounding countries relatively easily. The advantages, however, are not equally available to every country in the world. To address these specificities of Belgium, future studies can investigate internationalization in countries with varied conditions, such as different levels of economic development, or different levels of relationship and economic collaboration with neighbouring countries, etc. This approach will allow researchers to control for the impacts of these conditions.

Respondents being students is another factor that affect the representativeness of the study. There are specific characteristics of students that can create biases in our results. For example, while students have fewer assets, networking, and business experiences (Morris et al., 2017), they are more reactive to international trends, technologies, and innovations, which they can turn into international entrepreneurial opportunities (Oviatt and Mcdougall, 2005).

Second, future studies can measure internationalization using more fine-grained measurements. We measured IEI using a dichotomous variable, yet future studies can measure the intensity of IEI using Likert scales or pinpoint when in the business lifecycle entrepreneurs plan to internationalize their businesses (for instance, whether they plan to found born-global firms or whether they plan to internationalize once the firm is mature). Additionally, while we measured entrepreneurs' participation in international-themed activities, we did not measure the frequency or intensity of their participation. Future studies can isolate these international-themed activities to measure the effectiveness of each. For

example, research has not fully explored how effective less-“official” activities, such as helping refugees or integrating immigrants into a community (Fang et al., 2018), are at encouraging internationalization compared to the international activities that are part of the curriculum.

Third, based on our results, future studies can further integrate MCQ—as well as other aspects of cultural intelligence—into the well-established literature on international entrepreneurship to explore how it affects opportunity recognition (Lorenz et al., 2018), for example, or international orientation and choice of entry mode (Domurath et al., 2020).

Finally, since this study uses cross-section data, we cannot completely eliminate the possibility of reverse causality. In this paper, we minimize the risk of reverse causality by constructing our conceptual model following the chronological order. In particular, we argue that activities in the past, such as participating in international-themed activities or going abroad, lead to a higher level of MCQ in the present, and subsequently, a higher intention to internationalize future business. However, in order to thoroughly remove the risk of reverse causality, future studies can test the relationships between these factors using longitudinal studies. For example, MCQ can be observed before and after participating in international-themed activities or going abroad.

References

Adekiya, A. A., and Ibrahim, F. (2016). Entrepreneurship intention among students. The antecedent role of culture and entrepreneurship training and development. International Journal of Management Education, 14(2), 116–132. https://doi.org/10.1016/j.ijme.2016.03.001

Agarwal, R., Audretsch, D., and Sarkar, M. . (2007). The process of creative construction: knowledge spillovers, entrepreneurship, and economic growth. Strategic Entrepreneurship Journal, 1(3–4), 263–286. https://doi.org/10.1002/sej.36

Ajzen, I. (1991). The Theory of Planned Behaviour. Organizational Behaviour and Human Decision Processes, 50(2), 179–221.

Ammeer, M. A., Haddoud, M. Y., and Onjewu, A. K. E. (2022). A personal values view of international entrepreneurial intention. International Journal of Entrepreneurial Behaviour and Research, 28(3), 577–601. https://doi.org/10.1108/IJEBR-06-2021-0480

Amorós, J. E., Basco, R., and Romaní, G. (2016). Determinants of early internationalization of new firms: the case of Chile. International Entrepreneurship and Management Journal, 12(1), 283–307. https://doi.org/10.1007/s11365-014-0343-2

Ang, S., and Van Dyne, L. (2008a). Conceptualization of Cultural Intelligence Definition, Distinctiveness, and nomological network. In Handbook of cultural intelligence: Theory, measurement, and applications (pp. 3–15).

Ang, S., and Van Dyne, L. (2008b). Handbook of cultural intelligence: theory, measurement, and applications. In Choice Reviews Online.

Ang, S., Van Dyne, L., Koh, C., Ng, K. Y., Templer, K. J., Tay, C., and Chandrasekar, N. A. (2007). Cultural Intelligence: Its Measurement and Effects on Cultural Judgment and Decision Making, Cultural Adaptation and Task Performance. Management and Organization Review, 3(3), 335–371.

Bai, W., Holmström Lind, C., and Johanson, M. (2016). The performance of international returnee ventures: the role of networking capability and the usefulness of international business knowledge. Entrepreneurship and Regional Development, 28(9–10), 657–680. https://doi.org/10.1080/08985626.2016.1234003

Bandura, A. (1977). Social learning theory. In Prentice Hall: Englewood cliffs.

Bird, B. (2015). Entrepreneurial Intentions Research : A Review and Outlook. International Review of Entrepreneurship, 13(3), 143–168.

Bogatyreva, K., Edelman, L. F., Manolova, T. S., Osiyevskyy, O., and Shirokova, G. (2019). When do entrepreneurial intentions lead to actions? The role of national culture. Journal of Business Research, 96(May 2018), 309–321.

Buchtel, E. E. (2014). Cultural sensitivity or cultural stereotyping? Positive and negative effects of a cultural psychology class. International Journal of Intercultural Relations, 39(1), 40–52. https://doi.org/10.1016/j.ijintrel.2013.09.003

Bücker, J. J. L. E., and Korzilius, H. (2015). Developing cultural intelligence: assessing the effect of the Ecotonos cultural simulation game for international business students. International Journal of Human Resource Management, 26(15), 1995–2014. https://doi.org/10.1080/09585192.2015.1041759

Chen, X. P., Liu, D., and Portnoy, R. (2012). A multilevel investigation of motivational cultural intelligence, organizational diversity climate, and cultural sales: Evidence from U.S. real estate firms. Journal of Applied Psychology, 97(1), 93–106.

Cheung, C., Tung, V., and Goopio, J. (2022). Sport & Tourism Education Maximizing study abroad learning outcomes through cultural intelligence and emotional intelligence development. Journal of Hospitality, Leisure, Sport & Tourism Education, 30(July 2021), 100359. https://doi.org/10.1016/j.jhlste.2021.100359

Coviello, N. (2015). Re-thinking research on born globals. Journal of International Business Studies, 46(1), 17–26. https://doi.org/10.1057/jibs.2014.59
Criaco, G., Naldi, L., and Zahra, S. A. (2022). Founders' Prior Shared International Experience, Time to First Foreign Market Entry, and New Venture Performance. In Journal of Management (Vol. 48, Issue 8). https://doi.org/10.1177/01492063211029701
Crowne, K. A. (2008). What leads to cultural intelligence? Business Horizons, 51(5), 391–399. https://doi.org/10.1016/j.bushor.2008.03.010
Domurath, A., Coviello, N., Patzelt, H., and Ganal, B. (2020). New venture adaptation in international markets: A goal orientation theory perspective. Journal of World Business, 55(1), 101019. https://doi.org/10.1016/j.jwb.2019.101019
Eccles, J., and Wigfield, A. (2002). MOTIVATIONAL BELIEFS,VALUES, AND GOALS. Annual Review of Psychology, 53(1), 109–132.
Egri, C. P., and Herman, S. (2000). Leadership in the North American Environmental Sector: Values, Leadership Styles, and Contexts of Environmental Leaders and Their Organizations. Academy of Management Journal, 43(4), 571–604.
Eisenberg, J., Lee, H.-J., Bruck, F., Brenner, B., Claes, M.-T., Mironski, J., and Bell, R. (2013). Can Business Schools Make Students Culturally Competent? Effects of Cross-Cultural Management Courses on Cultural Intelligence. Academy of Management Learning & Education, 12(4), 603–621. https://doi.org/10.5465/amle.2012.0022
Fang, F., Schei, V., and Selart, M. (2018). Hype or hope? A new look at the research on cultural intelligence. International Journal of Intercultural Relations, 66(April), 148–171. https://doi.org/10.1016/j.ijintrel.2018.04.002
Fischer, R. (2011). Cross-cultural training effects on cultural essentialism beliefs and cultural intelligence. International Journal of Intercultural Relations, 35(6), 767–775.
Hessels, J., and van Stel, A. (2011). Entrepreneurship, export orientation, and economic growth. Small Business Economics, 37(2), 255–268. https://doi.org/10.1007/s11187-009-9233-3
Hessels, S. J., and Stel, A. J. van. (2007). Export Orientation among New Ventures and Economic Growth. (Issue ERIM Report Series Reference No. ERS-2007-008-ORG).
Hong, A. H., and Sullivan, F. R. (2013). Towards an idea-centered, principle-base design to as creation approach support learning knowledge. Educational Technology Research and Development, 57(5), 613–627. https://doi.org/10.1007/sl
Jannesari, M. T. (2022). Predictors of International Entrepreneurial Intention Among Young Adults: Social Cognitive Theory. Frontiers in Psychology, 13(June). https://doi.org/10.3389/fpsyg.2022.894717
Jiang, G., Kotabe, M., Zhang, F., Hao, A. W., Paul, J., and Wang, C. L. (2020). The determinants and performance of early internationalizing firms: A literature review and research agenda. International Business Review, 29(4), 101662. https://doi.org/10.1016/j.ibusrev.2019.101662
Jie, S., and Harms, R. (2017). Cross-Cultural Competences and International Entrepreneurial Intention : A Study on Entrepreneurship Education. Education Research International.
Kaczmarek, L. D., Kashdan, T. B., Drazkowski, D., Enko, J., Kosakowski, M., Säefer, A., and Bujacz, A. (2015). Why do people prefer gratitude journaling over gratitude letters? The influence of individual differences in motivation and personality on web-based interventions. Personality and Individual Differences, 75, 1–6. https://doi.org/10.1016/j.paid.2014.11.004
Kamal Abdien, M., and Jacob, M. (2019). Cross-cultural training and cultural intelligence of hospitality students: a case study in Egypt and Spain. Journal of Teaching in Travel and Tourism, 19(3), 191–215. https://doi.org/10.1080/15313220.2018.1557098
Key, K., Healy, M., and Mulligan, E. (2022). Closing the cultural intelligence skills gap in accounting students: An action research approach to cross-cultural teamwork. British Accounting Review, 54(3), 101034. https://doi.org/10.1016/j.bar.2021.101034
Kirwan, P., Ratinho, T., van der Sijde, P., and Groen, A. J. (2019). The early development of International New Ventures: a multidimensional exploration. International Journal of

Entrepreneurial Behaviour and Research, 25(6), 1340–1367. https://doi.org/10.1108/IJEBR-12-2017-0508
Knight, G. A., and Cavusgil, S. T. (2004). Innovation, organizational capabilities, and the born-global firm. Journal of International Business Studies, 35(2), 124–141. https://doi.org/10.1057/palgrave.jibs.8400071
Krueger, N. F., Reilly, M. D., and Carsrud, A. L. (2000). Competing Models of Entrepreneurial Intentions. Journal of Business Venturing, 15, 411–432.
Li, M., Mobley, W. H., and Kelly, A. (2013). When do global leaders learn best to develop cultural intelligence? An investigation of the moderating role of experiential learning style. Academy of Management Learning and Education, 12(1), 32–50. https://doi.org/10.5465/amle.2011.0014
Little, R. J. A. (1988). A test of missing completely at random for multivariate data with missing values. Journal of the American Statistical Association, 83(404), 1198–1202. https://doi.org/10.1080/01621459.1988.10478722
López-Núñez, M. I., Rubio-Valdehita, S., Aparicio-García, M. E., and Díaz-Ramiro, E. M. (2020). Are entrepreneurs born or made? The influence of personality. Personality and Individual Differences, 154(November 2019). https://doi.org/10.1016/j.paid.2019.109699
Lorenz, M. P., Ramsey, J. R., and Richey, R. G. (2018). Expatriates' international opportunity recognition and innovativeness: The role of metacognitive and cognitive cultural intelligence. Journal of World Business, 53(2), 222–236. https://doi.org/10.1016/j.jwb.2017.11.004
Macnab, B. R. (2012). An Experiential Approach to Cultural Intelligence Education. Journal of Management Education, 36(1), 66–94.
Mcdougall, P. P., and Loper, M. (2015). Global start-ups: Entrepreneurs on worldwide stage. Academy of Management, 9(2), 30–44.
McMullen, J. S., and Shepherd, D. A. (2006). Entrepreneurial Action and the Role of Uncertainty in the Theory of the Entrepreneur. The Academy of Management Review, 31(1), 132–152.
Middermann, L. H. (2020). Do immigrant entrepreneurs have natural cognitive advantages for international entrepreneurial activity? Sustainability (Switzerland), 12(7). https://doi.org/10.3390/su12072791
Mittermaier, A., Patzelt, H., and Shepherd, D. A. (2021). Motivating Prosocial Venturing in Response to a Humanitarian Crisis: Building Theory From the Refugee Crisis in Germany. Entrepreneurship: Theory and Practice. https://doi.org/10.1177/10422587211025233
Morris, M. H., Shirokova, G., and Tsukanova, T. (2017). Student entrepreneurship and the university ecosystem: A multi-country empirical exploration. European Journal of International Management, 11(1), 65–85. https://doi.org/10.1504/EJIM.2017.081251
Neneh, B. N. (2019). From entrepreneurial alertness to entrepreneurial behaviour: The role of trait competitiveness and proactive personality. Personality and Individual Differences, 138(October 2018), 273–279. https://doi.org/10.1016/j.paid.2018.10.020
Oviatt, B. M., and Mcdougall, P. P. (2005). Defining International Entrepreneurship and Modeling the Speed of Internationalization. Journal of International Entrepreneurship, 29(5), 537–553. https://doi.org/10.1111/j.1540-6520.2005.00097.x
Peng, A. C., van Dyne, L., and Oh, K. (2015). The Influence of Motivational Cultural Intelligence on Cultural Effectiveness Based on Study Abroad : The Moderating Role of Participant's Cultural Identity. Journal of Management Education, 39(5), 573–596.
Politi, E., Van Assche, J., Caprara, G. V., and Phalet, K. (2021). No man is an island: Psychological underpinnings of prosociality in the midst of the COVID-19 outbreak. Personality and Individual Differences, 171(September 2020), 110534. https://doi.org/10.1016/j.paid.2020.110534
Poort, I., Jansen, E., and Hofman, A. (2019). Intercultural group work in higher education: Costs and benefits from an expectancy-value theory perspective. International Journal of

Educational Research, 93(November 2018), 218–231. https://doi.org/10.1016/j.ijer.2018.11.010
Presbitero, A. (2017). It's not all about language ability: motivational cultural intelligence matters in call center performance. International Journal of Human Resource Management, 28(11), 1547–1562. https://doi.org/10.1080/09585192.2015.1128464
R Core Team. (2020). R: A language and environment for statistical computing. (https://www.R-project.org/). R Foundation for Statistical Computing, Vienna, Austria.
Renko, M., Kundu, S. K., Shrader, R., Carsrud, A. L., and Parhankangas, A. (2016). Liabilities, Advantages, and Buffers of Newness: How Young Age Makes Internationalization Possible. Group and Organization Management, 41(6), 786–822. https://doi.org/10.1177/1059601116668761
Rosseel, Y. (2012). lavaan: An R Package for Structural Equation Modeling. JournalofStatisticalSoftware, 48(2), 1–36.
Ruzzier, M., Douglas, E. J., Ruzzier, M. K., and Hojnik, J. (2020). International entrepreneurial orientation and the intention to internationalize. Sustainability (Switzerland), 12(14), 1–20. https://doi.org/10.3390/su12145647
Schwens, C., and Kabst, R. (2009). How early opposed to late internationalizers learn: Experience of others and paradigms of interpretation. International Business Review, 18(5), 509–522. https://doi.org/10.1016/j.ibusrev.2009.06.001
Shane, S., and Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research. The Academy of Management Review, 25(1), 217–226.
Shannon, L. M., and Begley, T. M. (2008). Antecedents of the Four-Factor model of cultural Intelligence. In Handbook of cultural intelligence: Theory, measurement, and applications (pp. 41–55).
Sieger, P., Fueglistaller, U., and Zellweger, T. (2016). Student Entrepreneurship 2016: Insights From 50 Countries. In St.Gallen/Bern: KMU-HSG/IMU.
Sieger, P., and Monsen, E. (2015). Founder, Academic, or Employee? A Nuanced Study of Career Choice Intentions. Journal of Small Business Management, 53, 30–57. https://doi.org/10.1111/jsbm.12181
Sommer, L., and Haug, M. (2011). Intention as a cognitive antecedent to international entrepreneurship-understanding the moderating roles of knowledge and experience. International Entrepreneurship and Management Journal, 7(1), 111–142. https://doi.org/10.1007/s11365-010-0162-z
Song, H., Varma, A., and Zhang Zhang, Y. (2021). Motivational cultural intelligence and expatriate talent adjustment: an exploratory study of the moderation effects of cultural distance. International Journal of Human Resource Management, 0(0), 1–25. https://doi.org/10.1080/09585192.2021.1966491
Tarique, I., and Takeuchi, R. (2008). Developing Cultural Intelligence the Roles of International nonwork experiences. In Handbook of cultural intelligence: Theory, measurement, and applications (pp. 56–70).
Templer, K. J., Tay, C., and Chandrasekar, N. A. (2006). Motivational cultural intelligence, realistic job preview, realistic living conditions preview, and cross-cultural adjustment. Group & Organization Management, 31(1), 154–173.
Tierney, N., and Cook, D. (2018). Expanding tidy data principles to facilitate missing data exploration, visualization and assessment of imputations. ArXiv Preprint ArXiv:1809.02264. https://doi.org/10.18637/jss.v000.i00
Vahlne, J. E., and Johanson, J. (2020). The Uppsala model: Networks and micro-foundations. Journal of International Business Studies, 51(1), 4–10. https://doi.org/10.1057/s41267-019-00277-x

Van Dyne, L., Ang, S., and Koh, C. (2008). Development and Validation of the CQS - the cultural Intelligence scale. In Handbook of cultural intelligence: Theory, measurement, and applications (pp. 16–38).

Van Dyne, L., Ang, S., Ng, K. Y., Rockstuhl, T., Tan, M. L., and Koh, C. (2012). Sub-Dimensions of the Four Factor Model of Cultural Intelligence: Expanding the Conceptualization and Measurement of Cultural Intelligence. Social and Personality Psychology Compass, 6(4), 295–313. https://doi.org/10.1111/j.1751-9004.2012.00429.x

Wang, Y., Zhou, H., Zhang, Y., and Sun, X. R. (2022). Role of Entrepreneurial Behaviour in Achieving Sustainable Digital Economy. Frontiers in Public Health, 10(February), 1–13. https://doi.org/10.3389/fpubh.2022.829289

Ward, C., and Fischer, R. (2008). Personality, Cultural Intelligence CQ, and Cross-Cultural Adaptation: A Test of the Mediation Hypothesis. Handbook of Cultural Intelligence, 2003, 159–176.

Wood, E. D., Peters, H. Y. Z. S., Wood, E. D., St, H. Y. Z., and Short-term, P. (2014). Short-term cross-cultural study tours : impact on cultural intelligence. In The International Journal of Human Resource Management (Vol. 25, Issue 4, pp. 558–570). Taylor & Francis. https://doi.org/10.1080/09585192.2013.796315

Yue, Y., and Lu, J. (2022). International Students' Motivation to Study Abroad: An Empirical Study Based on Expectancy-Value Theory and Self-Determination Theory. Frontiers in Psychology, 13(March). https://doi.org/10.3389/fpsyg.2022.841122

Zahra, S. A., Ireland, R. D., and Hitt, M. A. (2000). International Expansion by New Venture Firms: International Diversity, Mode of Market Entry, Technological Learning, and Performance. Academy of Management Journal, 43(5), 925–950. https://doi.org/Doi 10.2307/1556420

Zahra, S. A., Korri, J. S., and Yu, J. F. (2005). Cognition and international entrepreneurship: Implications for research on international opportunity recognition and exploitation. International Business Review, 14(2), 129–146. https://doi.org/10.1016/j.ibusrev.2004.04.005

Zhang, Y., and Hussain, T. (2021). SIEs' interaction and adaptation to their task performance. Journal of Business Research, 128(January), 370–380. https://doi.org/10.1016/j.jbusres.2021.01.049

Zhao, X., Lynch, J. G., and Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. Journal of Consumer Research, 37(2), 197–206.

Zhou, L. (2007). The effects of entrepreneurial proclivity and foreign market knowledge on early internationalization. Journal of World Business, 42(3), 281–293. https://doi.org/10.1016/j.jwb.2007.04.009

Appendix

Table 4.4: Results of model that include control variables of Age and Gender

	Coefficient (95% confidence interval)	
	Model 2 (N = 473)	**Model 3 (N = 456)**
Direct effect		
Age		-0.06 [-0.12, 0.01]
Gender		-0.69 [-0.99, -0.41] ***
Motivational Cultural Intelligence	0.21 [0.07, 0.37] **	0.25 [0.11, 0.40]***
International Experience	-0.00 [-0.01, 0.02]	0.01 [-0.01, 0.03]
International Knowledge	0.09 [-0.00, 0.21]	0.09 [-0.01, 0.21]
Indirect effect		
International Experience → MCQ	0.02 [0.01, 0.03] ***	
International Knowledge → MCQ	0.11 [0.05, 0.17] ***	.09 [0.03, 0.15] **

**** p < .001; ** p < .01; * p < .05.*

This table compares the results of Model 2 (the main model that test the hypotheses of the paper) and Model 3 that includes the control variables of Age and Gender.

Chapter 5: The power distance-institutional context interplay in explaining entrepreneurial activity: A multilevel approach

Tùng Thanh Phan, Johanna Vanderstraeten, Hendrik Slabbinck, Vincent Molly

Abstract

In the entrepreneurship domain, power distance is predominantly conceptualized as a country level variable which discourages innovativeness, independence, proactiveness and self-realization – all important antecedents of entrepreneurial activities. In this study we use the individual's perceived power distance to capture individual variation, and adopt the country entrepreneurial institutional profile framework to consider whether the environment in which the individual operates is entrepreneurially-minded.

Multilevel analyses with two large databases, one from GUESSS, and one from GEM, reveal that the impact of individual-level perceived power distance on entrepreneurial activities is not, as previously suggested, detrimental. The degree and direction of this relationship, in fact, varies between countries and is moderated by country-level cognitive and normative entrepreneurial institutions. These results complement existing studies on national power distance in the entrepreneurship domain by highlighting the importance of adopting individual variations, and explicitly acknowledging the multilevel nature of the antecedents of entrepreneurial activities.

Keywords: Entrepreneurial activities, multilevel analysis, perceived power distance, institutional theory, country institutional profile.

1. Introduction

Entrepreneurial activities are important for economic development. New businesses stimulate innovativeness and creativity (Baumol and Strom, 2007), and create jobs (Van Stel and Storey, 2004). It is therefore not surprising that a large number of studies devote attention to the impact of individual (e.g., entrepreneurial skills, attitudes) and contextual (e.g., entrepreneurial education; social, cultural or political contexts) antecedents on start-up creation and growth (Levie and Autio, 2008; Shepherd et al., 2015). At the contextual level power distance differences have often been studied to explain discrepancies in entrepreneurial activities across countries, with the general argument that countries scoring high on power distance score lower on the amount of innovative and entrepreneurial activities (Hayton et al., 2002; Lee & Peterson, 2000; Mitchell et al., 2000; Shane, 1993; Shane, 1992; Stephan & Uhlaner, 2010; Tian et al., 2018).

However, in practice, this argument does not always seem to hold. Global studies like Global Entrepreneurship Monitor (Bosma et al., 2021) and Hofstede Insights (GEM, 2017; Hofstede, 2001; Hofstede Insights, 2022; Kelley et al., 2016) show that adjacent countries with similar scores on power distance report very different start-up percentages and entrepreneurial activities. Similarly, there are also examples of countries with drastically different scores of power distance, yet achieving a somewhat similar level of entrepreneurial activities.

Indeed, recently, scholars such as Kirkman, Lowe and Gibson (2017) or Daniels and Greguras (2014) indicated that by examining power distance as a national context variable, within-country variation and personal differences are neglected. There is also evidence that within-country (individual-level) variation in power distance perceptions can be larger than between-country power distance differences (Taras et al., 2010). This illustrates that the relationship between power distance and entrepreneurial activities might require a more fine-grained approach, taking into account such within-country variation reflecting individual power distance perceptions.

In this paper, we adopt this perspective, and follow researchers such as Shane and Venkataraman (2000) and McMullen and Shepherd (2006), who stress that entrepreneurial activities are not only influenced by national regulations and customs (i.e., the national

entrepreneurial *context*) but also by how individuals perceive this national context (i.e., the *individual* perspective). We argue that the individual perception of the external environment (i.e., the national context) is highly related to the individual's choice to undertake entrepreneurial activities. More specifically, we argue that the adoption of *individual perceived* power distance is a fine-grained predictor of entrepreneurial activities, which allows us to examine within-country variance at an individual level. Perceptions, in general, act as a personal representation of the external environment, through which external factors are filtered. By following this approach, we support the argument that entrepreneurial activities are the result of a process of *perceived* opportunities, uncertainties, feasibility and desirability of the surrounding environment or context (Autio et al., 2013; McMullen and Shepherd, 2006).

In addition, as also suggested by Shane and Venkataraman (2000) and McMullen and Shepherd (2006), we recognize the impact of the person's surrounding institutions on entrepreneurial activities (Busenitz et al., 2000), and take into account the institutional entrepreneurial context an individual is operating in. We thus acknowledge the necessity of a person-context interaction, and examine how distinct features of national entrepreneurial institutions, represented by a normative, cognitive and regulatory institutional component, moderate the relationship between individual perceived power distance and entrepreneurial activities. To do so, we follow the institutional theory (Scott, 1995), which was operationalized as a country institutional profile model by Kostova (1997). The latter has been widely adopted in the entrepreneurship domain (e.g., Busenitz et al., 2000; De Clercq et al., 2010; Shirokova et al., 2021; Vanderstraeten et al., 2020; Wales et al., 2021).

In this study we will answer the following research question: "*how does individual perceived power distance impact entrepreneurial activities, and how do national entrepreneurial institutions moderate this relationship?*". To answer this question, we combine two datasets: a large and unique dataset measuring entrepreneurial activities of young adults across the globe, and a dataset providing insights on country-level entrepreneurial institutions. The former finds its roots in the Global University Entrepreneurial Spirit Students' Survey (GUESSS) project 2016, and the latter in the Global Entrepreneurship Monitor (GEM) datasets of 2015 and 2016. Acknowledging the multilevel structure of our conceptual model and data structure, we apply multilevel logistic regression to test our theoretical arguments.

With this study, we contribute to the literature on comparative international entrepreneurship in several ways. We expand upon the topic of individual-level perception of national culture, which is – to date and to the best of our knowledge – a relatively overlooked topic in the international business and entrepreneurship domains, compared to country-level aggregate approaches (Kirkman et al., 2006, 2017). We do this by examining the effect of individual perceived power distance – a dimension of national culture (Hofstede, 2001; House et al., 2004) –on the decision to found entrepreneurial businesses. Not only adding to the literature by using a fine-grained measure of perceived power distance, we follow the assessment and recommendation by Kirkman et al., (2017) regarding the lack of understanding of how culture has different effects in different contexts. We do this by explaining how the impact of perceived power distance is contingent on a country's institutional profile, which consists of the regulatory, normative, and cognitive dimensions (Busenitz et al., 2000; Kostova, 1997; Scott, 1995).

Our hypotheses and results bring up interesting implications regarding the relationship between national culture and entrepreneurial activities, both from a theoretical and practical point of view. Our results show that on the individual level, power distance does not necessarily have a negative impact on entrepreneurial activities. This differs from the consensus established by studies using country-level measurements of culture that power distance and entrepreneurship are negatively related (e.g., Tian et al., 2018; Urbano et al., 2016), yet in line with suspicions that the relationship between culture and entrepreneurship are dissimilar across levels of analysis (Kirkman et al., 2017; Taras et al., 2010). As such, this study is one of the first to examine the interaction of these two highly relevant dimensions impacting entrepreneurial activity, which is in line with the call of Bruton et al., (2010) to go beyond culture in entrepreneurship research by integrating strong moderators.

In what follows, we first discuss our theoretical argumentation and model, after which we explain our methodological approach and summarize our results. Before we end with a concluding section, we discuss our results in relation to existing literature.

2. Literature review

2.1. Power Distance

Power distance is a basic aspect of human interaction, representing people's levels of acceptance and expectation toward the dispersion of power (Hofstede, 2001; House et al., 2004). Contemporary literature on the connection between national power distance and entrepreneurial activities points towards a negative relationship between both constructs (e.g., Hayton et al., 2002; Lee & Peterson, 2000; Mitchell et al., 2000; Shane, 1993; Shane, 1992; Stephan & Uhlaner, 2010; Tian et al., 2018). The main reasoning finds its origins in the negative impact of high power distance on an entrepreneur's opportunities for legitimacy building and accessibility to resources (Hayton et al., 2002).

In the past decade, concerns regarding the adoption of power distance as a country-level variable emerged. The argument goes that such a country-level viewpoint follows the assumption of homology within the same level of analysis (i.e., between countries of different contexts), as well as across levels (i.e., the country and individual level) (Autio et al., 2013; Kirkman et al., 2017; Taras et al., 2010). In practice, this does not always seem to be the case. For example, Lee and Peterson (2000) described examples of countries with *similar* levels of national power distance having vastly *different* levels of entrepreneurial activities. Even neighbouring countries with arguably similar cultures and levels of economic development report different levels of entrepreneurial activities, even though their national power distance scores are comparable. For example, figures from Global Entrepreneurship Monitor (Bosma et al., 2021) and Hofstede Insights (GEM, 2017; Hofstede, 2001; Hofstede Insights, 2022; Kelley et al., 2016) show that adjacent countries such as Colombia and Brazil, which have similar level of power distance, report vastly different entrepreneurial activities: in Colombia, 31.46 percent of the adult population indicates that they are active in entrepreneurial activities, while in Brazil, only 13.32 percent does so (GEM, 2017; Kelley et al., 2016). Similarly, countries with drastically different levels of national power distance score similarly on the number of entrepreneurial activities. Austria and Slovakia, for instance, report power distance scores of 11 and 100, respectively, yet have very similar entrepreneurial activities scores (i.e., 11.46 and 12.00 percent, respectively) (GEM, 2017; Kelley et al., 2016).

These inconsistencies have drawn attention from researchers, especially from those following the argument that entrepreneurial activities are a product of *both* the individual qualities of the entrepreneur, as well as the context in which they are embedded (Shane, Locke, and Collins 2003; McMullen and Shepherd 2006). These authors describe the entrepreneurial process as individuals who observe and evaluate an opportunity, and judge its feasibility within the surrounding environment, before acting upon this information. In this paper, we follow this perspective, and examine the relationship between individual-level perceived power distance and entrepreneurial activities. Perceived power distance, in our study, is defined as a personal interpretation of the acceptance or expectation of power distance in the surrounding environment. This approach allows us to examine entrepreneurial activities as an individual perceptional process, while still treating power distance as a primary determinant.

2.2. The Relationship between Perceived Power Distance and Entrepreneurial Activities

Studies adopting power distance as an individual-level variable instead of a national-level factor have emerged in the last decades (e.g., Farh et al., 2007; Kirkman et al., 2009; Tyler et al., 2000). Most studies portray negative relationships with entrepreneurship-related constructs. For example, Lee, Lalwani, and Wang (2020) showed that high individual-level power distance negatively influences the tendency to accept uncertainty. Clugston (2000) and Farh, Hackett, and Liang (2007) found a negative relation between individual-level power distance and self-realization and independence, and Zheng et al. (2019) show that individual-level power distance inhibits information and knowledge sharing.

In this paper, we also argue that perceived power distance has a negative relationship with entrepreneurial activities. In particular, a high level of perceived power distance implies recognizing that the ideas and solutions imposed by the authority are oftentimes trusted and accepted without questioning them (Hofstede, 2001; Tyler et al., 2000). People perceiving high power distance in the society they operate in believe that society holds preference for unambiguity and conventionality (Lee et al., 2020). As a result, because entrepreneurial solutions and innovative ideas are – due to their newness and lack of legitimacy – unknown, they do not hold authorization, and are perceived as too ambiguous (Singh et al., 1986; Yang

and Aldrich, 2017). Consequently, if (potential) entrepreneurs perceive high power distance, they believe that using products or services from entrepreneurial businesses, as well as championing and supporting such businesses is less favourable than choosing conventional and widely normalized options, such as government-owned or well-established businesses (Yang and Aldrich, 2017).

Additionally, power distance implies scarcity of entrepreneurial resources: those having access to resources will not share them, and those *not* having access to entrepreneurial resources accept this. Indeed, high power distance indicates that wealth and opportunities are not dispersed equally in society (Bogatyreva et al., 2019). Thus, people perceiving high power distance believe that those holding power have access to ample resources and that these power holders are not inclined to act in ways that lower the distances in society (Côté et al., 2015; Winterich and Zhang, 2014). Those who have power will thus not "free" their resources. In addition, people with less resources and opportunities treat the status-quo as natural and fair (Farh et al., 2007; Hofstede, 2001). They, as well, will thus not act to redistribute resources. Power positions in society will thus not change, and those having less resources accept this.

This viewpoint implies that people perceiving high power distance accept that resources do not freely "float" in society (Mitchell et al., 2000), and are thus less available for entrepreneurial activities than in societies with lower perceived power distance. Power distance increases scarcity of intangible resources, such as information, ideas (Farh et al., 2007; Hofstede, 2001) or transparency (Jain and Jain 2018). This leads to asymmetric information and difficulties in making decisions involving risks, such as creating an entrepreneurial business (McMullen and Shepherd, 2006).

As both legitimacy building and resource access are crucial to overcome barriers to business foundation (Klapper et al., 2004; Lin et al., 2010; McGrath and O'Toole, 2014; Ulhøi, 2005), people with higher perceived power distance believe that they will likely be less successful in risky entrepreneurial endeavours, and that entrepreneurial activities are only for the "happy few" (e.g., individuals with ample resources and opportunities or in power positions) (Mitchell et al., 2000). In addition, even for those "happy few" individuals, resources do not freely "float" in society. Individual-level higher perceived power distance, therefore, raises

a barrier towards entrepreneurial behaviour, irrespective whether the person starting the business considers him/herself as a power holder or not. We therefore argue that high individual-level perceived power distance will refrain people from pursuing an entrepreneurial career, and consequently is negatively related to entrepreneurial activities. We hypothesize:

> *H1: Individual-level perceived power distance is negatively related to entrepreneurial activities*

2.3. The Moderating Effect of Country's Institutional Profile

As undertaking entrepreneurial activities is a complicated process, not only stimulated by individual qualities but also by the context in which these activities are embedded, we follow the perspective from authors such as Bruton, Ahlstrom, and Li (2010), Busenitz, Gomez, and Spencer (2000) and Welter and Smallbone (2011) to also include contextual factors in entrepreneurship-related studies. To do so, we adopt the institutional theory model suggested by Scott (1995), who argues that a national institution constitutes of a regulatory, normative and cognitive dimension. This three-factor model was later operationalized into a country institutional profile developed by Kostova (1997), and applied to the entrepreneurship domain (Busenitz et al., 2000). It successfully explains entrepreneurial activities at a national level (e.g., Urbano & Alvarez, 2014), influences start-up support mechanisms (e.g., Vanderstraeten, van Witteloostuijn, and Matthyssens, 2020), and is a contingency factor of individual-level predictors of entrepreneurial activities (e.g., Bruton et al., 2010; De Clercq et al., 2013). A highly developed institutional entrepreneurial context is also called a stimulating entrepreneurially-minded environment (Vanderstraeten et al., 2020).

The regulatory dimension represents a society's rules, applied via obligation and enforcement, such as national laws and legal requirements (Scott, 1995). In the entrepreneurship context, the country-level entrepreneurial regulatory component implies the development of supportive systems for entrepreneurs, such as access to entrepreneurial resources and opportunities (Levie and Autio, 2008), bureaucratic procedures to easily create an entrepreneurial business (Stenholm et al., 2013), and legal protection for entrepreneurial firms against risks (Wales et al., 2021).

The regulatory dimension is highly relevant to perceived power distance. A well-developed entrepreneurial regulatory environment formally supports entrepreneurial activities via, for example, tax incentives, easier bureaucratic or financial procedures, putting nurturing and preserving entrepreneurial activities high on the agenda (Busenitz et al., 2000; De Clercq et al., 2010; Vanderstraeten et al., 2020). Such support measures mitigate the difficulties experienced by high perceived power distance, such as resource access difficulties or high risk perceptions (Busenitz et al., 2000; Ruozzi and Vicente, 2021), and alleviates the perception that entrepreneurial activities are something only power holders can undertake (Bogatyreva et al., 2019; Mitchell et al., 2000).

In tandem with this effect, if entrepreneurs perceive high power distance in their environment, they infer that the regulatory tools and systems imposed by policymakers are wilfully adopted in society, thanks to the respectful and accepting attitude toward the authority (Hofstede, 2001). Thus, on an individual level, people with higher perceived power distance will believe that the supportive policies are thoroughly respected and implemented, which increases the perceived effectiveness of supportive policies. Based on this mutual positive interaction, we hypothesize that in entrepreneurially-minded regulative environments the negative relation between perceived power distance and entrepreneurial activities will be mitigated. Therefore, we hypothesize:

> *H2: An entrepreneurially-minded regulatory environment positively moderates the negative relationship between perceived power distance and entrepreneurial activities*

The normative dimension is represented by shared informal values and expectations, granting legitimacy, and creating boundaries of obligations or privileges in social interaction (Scott, 1995). The entrepreneurial normative environment, therefore, consists of people's attitude toward entrepreneurial qualities such as innovativeness, independence or risk-taking, and entrepreneurship as a career choice (Busenitz et al., 2000). In an entrepreneurially-minded normative environment, entrepreneurship aligns with social desire, and is recognized as a legitimate career choice. Entrepreneurs receive intangible support, such as higher legitimacy when applying for financial support and can more easily

build their network with (potential) customers, investors and the government (Bruton et al., 2010; Busenitz et al., 2000; DiMaggio and Powell, 1983; Shirokova et al., 2021). Such an environment increases the feasibility of entrepreneurial activities and encourages choosing an entrepreneurial career (Autio et al., 2013; McMullen and Shepherd, 2006).

As with the regulatory dimension, we also argue that the normative dimension is highly relevant to perceived power distance, as a high level of perceived power distance is associated with the need to receive approval or appreciation from the power holders and the population at large (Hofstede, 2001). Typically for start-up businesses, developers of entrepreneurial and innovative ideas need to get such approval and legitimacy from others. If such approval is *not* granted, entrepreneurs risk having their ideas deemed "inappropriate" and thus disapproved (Bruton et al., 2010). In an entrepreneurially-minded normative environment, however, entrepreneurial activities are in line with society's expectations (Shirokova et al., 2021). Entrepreneurial activities will be endorsed, and entrepreneurial qualities are treated as a desirable and legitimate career option (Levie and Autio, 2008). In such environments, customers, sponsors and other stakeholders are more eager to support entrepreneurial businesses instead of legitimizing conventional and traditional corporations – which are strongly preferred in high power distance environments (Bruton et al., 2010; Hofstede, 2001; Wales et al., 2021). In turn, potential entrepreneurs are more willing to reach out to customers, sponsors or other stakeholders (Wales et al., 2021), as they are now more easily accepted despite the lack of track record or established activities (Bruton et al., 2010). Thus, we expect that in entrepreneurially-minded normative environments, the negative relation between high perceived power distance and entrepreneurial activities will be alleviated. All in all, we hypothesize:

> *H3: An entrepreneurially-minded normative environment positively moderates the negative relationship between perceived power distance and entrepreneurial activities*

The cognitive dimension portrays the ability to comprehend, encode or process information from the surrounding environment. Unlike the normative dimension, the cognitive dimension does not regard the morality and appropriateness of the decisions; instead, it

controls people's decisions via shared understandings, patterns of thinking, and capabilities (Scott, 1995). When applied to the entrepreneurship domain, the cognitive dimension represents whether knowledge about business foundation and development is dispersed in society (Busenitz et al., 2000). This could, for example, be organized via the institutionalization of entrepreneurial education (Wales et al., 2021). An entrepreneurially-minded cognitive environment implies that society members are able to recognize and evaluate entrepreneurial opportunities, which directly stimulates entrepreneurial activities (McMullen and Shepherd, 2006).

A well-developed entrepreneurially-minded cognitive institution, represented by the dispersion of entrepreneurship-related information and capabilities, mitigates the negative effect of perceived power distance by improving information sharing (Farh et al., 2007; Hofstede, 2001; Jain & Jain, 2018). In particular, while power distance implies difficulties in networking, communicating and information sharing – especially between different social groups and different levels of social hierarchy, entrepreneurially-minded cognitive environments counter these difficulties by providing entrepreneurs with entrepreneurship-related knowledge, making them less dependent upon their networks and relationships for entrepreneurship-related knowledge or information.

We also expect the cognitive dimension to interact with the impact of perceived power distance on entrepreneurial activities via resource availability. When (potential) entrepreneurs perceive high power distance, they believe that resources, information and opportunities are congested, making entrepreneurial manoeuvres farfetched and infeasible (Bogatyreva et al., 2019; McGrath and O'Toole, 2014; Mitchell et al., 2000; Ulhøi, 2005). The development of the cognitive entrepreneurial environment (via, e.g., entrepreneurial education) offsets these impacts of power distance in two ways. First, it increases available intangible resources in form of entrepreneurial know-how and practices, partially reducing the perception of resource scarcity. Second, it builds a highly-skilled, entrepreneurial pool of human resources, who has the ability and willingness to join and support entrepreneurial projects, rather than following conventional career choices or side with established, widely endorsed firms (De Clercq et al., 2013; Shirokova et al., 2021; Wales et al., 2021).

In other words, we argue that an entrepreneurially-minded cognitive environment will alleviate the negative relationship between high perceived power distance and entrepreneurial activities. We therefore hypothesize:

> *H4: An entrepreneurially-minded cognitive environment positively moderates the negative relationship between perceived power distance and entrepreneurial activities*

3. Method

3.1. Data and Sample

We construct a dataset to test the proposed hypotheses from several sources. For our individual-level constructs, we use data from the Global University Entrepreneurial Spirit Students' Survey (GUESSS) in 2016. For country-specific information, we rely on data from the Global Entrepreneurship Monitor (GEM) of 2015 and 2016.

GUESSS is an international project that focuses on the entrepreneurial intentions and activities of higher education students. The GUESSS project started in 2003 and is administrated by the University of St. Gallen (Switzerland). Data are collected biannually. The 2016 edition of the GUESSS project covers 50 countries from more than 1,000 universities, representing observations of more than 122,000 students (Sieger et al., 2016). The GUESSS international dataset has been proven to be a highly effective dataset for cross-country comparisons of entrepreneurial activities. Recent examples are papers by Leiva et al. (2023) and by Rippa et al. (2023), which used the GUESSS international dataset to explore how students' entrepreneurial activities are affected by the university and national contexts. More examples of the application of the GUESSS dataset in academic studies can be found on the project's official website[7].

[7] https://www.guesssurvey.org/publications/publications/academic-journals.html

For individual-level data, we focus on students' entrepreneurial activities. More specifically, we investigate how students' perceived power distance translates into students' entrepreneurial activities, and how the surrounding national institutional profiles impact these relations. Our focus on a higher education student sample is advantageous for several reasons. First, because of limited societal knowledge and practical career experience (Bergmann et al., 2016), students constitute a relatively homogeneous sample, which allows studying the impact of societal and contextual phenomena in groups that are difficult to sample like entrepreneurs (Jager et al., 2017). Second, also because of this lack of experience and knowledge, the surrounding context has a more critical influence in students' decision-making, such as deciding to proceed with entrepreneurial activities, compared to later maturity and career stages (Bergmann et al., 2016). Additionally, students face a lot of opportunities during their student life and the choices they make have a considerable impact on their future careers (Pruett et al., 2009; Shinnar et al., 2009). Students who already started to explore their entrepreneurial capacities during their education are likely to keep on following this career path in later stages of their lives (Holienka, Gal, et al., 2017; Politis et al., 2012). These characteristics make that the student years are a relevant setting to study entrepreneurial activities. It is not only a life stage during which entrepreneurial activities are seeded and nourished (Jansen et al., 2015), expanding the knowledge during this period is also highly relevant to understand and stimulate entrepreneurship in general (Holienka, Gál, et al., 2017).

Also from a power distance perspective, our focus on a student sample has a major advantage. That is, formal schooling, including higher educational institutions, relies on discipline and promotes meritocracy in order to create a competent workforce (Shirokova et al., 2018). In such a system, the distanced and hierarchical relationship between students, the university's internal stakeholders (e.g., professors, coordinators, etc.), and external stakeholders in the wider society (e.g., policy makers, business people, etc.) creates a natural environment to study perceptions of power distance on behaviour (Shirokova et al., 2018). Empirically, several studies relied on student samples to study the effects of power distance on different types of entrepreneurship behaviour, both in term of direct effects (Bouncken et al., 2014) and as a moderator (Oo et al., 2018; Shirokova et al., 2018).

In our analyses, we involve students that are non-entrepreneurs, as well as students that are currently running a business. We exclude international and exchange students to avoid two biases: (1) international and exchange students, due to the short period of staying in a foreign country, may not have an accurate view on the power distance of the country they are staying in; and (2) creating a new business in a foreign country while staying there temporarily is significantly more difficult, with barriers such as unfamiliarity with culture, language, laws and regulations. We also exclude observations with missing values in relevant variables, and observations of low quality (i.e., responses with no variance in Likert-scale items). Finally, to achieve reliable cross-level interaction results, we only include countries with at least 100 appropriate responses (Schoeneberger, 2016).

As stated, the country-level institutional profile dimensions originate from the Global Entrepreneurship Monitor (GEM). GEM is an international consortium that carries out survey-based research on entrepreneurship and entrepreneurship ecosystems around the world (GEM, 2017; Kelley et al., 2016). Similar to the GUESSS database, the report from GEM has facilitated many studies that compare entrepreneurial activities between countries. The breadth of academic studies based on the GEM database can be accessed on their official website[8].

We use the samples of 2015 and 2016 which together cover 76 countries. GEM data relies on two data sources: the Adult Population Survey (APS), which collects data on entrepreneurship directly from individual entrepreneurs, and the National Expert Survey (NES), which involves the opinions of a selected number of national experts. We utilize data from both the APS and NES databases (see below for more details).

The final, integrated, dataset has 107,156 observations, from 39 countries with various cultural (House et al., 2004) and economic backgrounds (Porter et al., 2001). Table 5.1

[8] https://www.gemconsortium.org/research-papers

displays the distribution of the sample across countries, and Table 5.2 presents demographic statistics of the sample.

3.2. Measures

Dependent variable.

The student's entrepreneurial activity is the dependent variable of interest, and is measured by a dichotomous variable. Students were asked "Are you already running your own business/are you already self-employed?". Students answering "Yes" to this question are coded as "1", while students answering "No" are coded as "0".

Independent variable.

The student's perceived power distance is the focal individual-level independent variable. To measure perceived power distance, we adopt the power distance items from the GUESSS survey. They originally stem from GLOBE's societal cultural practice scales (House et al., 2004). Cultural practices describe how culture is enacted in actual daily social behaviours. The societal cultural practice scales were developed to measure respondents' observations and perceptions of these cultural enactments (Autio et al., 2013; House et al., 2004). The power distance scale in the GUESSS survey consists of three statements. The statements are graded on a 1-7-Likert scale. The ends of the Likert scales are anchored with labels that express opposite opinions. The statement "*In my society, followers are expected to*", was followed by a Likert scale with "*Question leaders when in disagreement*" as lower-end anchor (score: 1) and "*Obey leaders without question*" as higher-end anchor (score : 7). Similarly, the statement "*In my society, a person's influence is based primarily on*" was followed by the scale with "*Ability and contribution to society*" at the lower end and "*Authority of one's position*" at the higher end. The third statement "*In my society, power is*" had the two choices of "*Shared throughout society* " and "*Concentrated at the top*" at two ends of the Likert scale. Higher values on perceived power distance indicate that an individual perceives higher inequalities in the distribution of power in actual daily social behaviours. We take the average of the responses to the three questions as the individual's perceived power distance score. Cronbach's alpha for this scale is 0.70

Moderating variables.

The country's institutional profile constitutes the country-level moderating variables. Following preceding studies on entrepreneurial institutions (De Clercq et al., 2010; T. Li, 2018; Urbano and Alvarez, 2014), we work with – as explained – three dimensions. Each dimension of the country institutional profile is represented by country-level evaluations from GEM's National Expert Survey (GEM NES) and GEM's Adult Population Survey (GEM APS) (Kelley et al., 2016; Reynolds et al., 2005).

We represent the regulatory dimension by the level of entrepreneurial support that businesses receive from the government in terms of policies, taxes and bureaucracy. This information is taken from the GEM NES reports (Kelley et al., 2016). The scores in these reports denote the average opinion of a sample of national experts on 7-point Likert scales (Bosma et al., 2021; Kelley et al., 2016). The regulatory scale covers the financial and legal support that government provides to engage in entrepreneurial activities (e.g., indirectly reducing costs via tax incentives), the availability of efficient administrative procedures (e.g., standardized and fast process to create new businesses), and the provision of adequate information on business foundation (Levie and Autio, 2008). In particular, we extract three factors from the GEM NES database that represent "*Government policies: support and relevance*", "*Government policies: taxes and bureaucracy*" and "*Government entrepreneurship programs*" (GEM, 2017; Kelley et al., 2016).

We adopt the normative and cognitive dimensions from the reports of the GEM Adult Population Survey (APS). GEM APS reports the national aggregated scores from the 18-64 years old population of the participating countries (Reynolds et al., 2005). The GEM APS survey consists of statements that require dichotomous answers, and the national report accumulates the percentage of positive answers for each country. The normative dimension is represented by the attitude toward entrepreneurship as a career choice, its social status, and media attention toward successful entrepreneurial examples. Following GEM APS's categorization (GEM, 2017; Kelley et al., 2016), we use the following statements to assess the normative dimension: *"People consider starting business as good career choice", "People attach high status to successful entrepreneurs" and "In my country there is lots of media attention for entrepreneurship".* Finally, to measure the cognitive dimension, we use

the national percentage of the adult population who agrees that they "[have] *required knowledge/skills to start business*". This national-level variable closely represents how entrepreneurial knowledge is dispersed in society (Busenitz et al., 2000). Because the normative and cognitive dimensions are represented by percentages, the scores on these variables range between 0 and 100.

Control variables.

We include several individual-level control variables: age, gender and having parents working as entrepreneurs. Entrepreneurial parents act as role models and sources of knowledge, financial and social capital (Bloemen-Bekx et al., 2019; Nowiński and Haddoud, 2019). Because studies show that having entrepreneurial parents is positively related to entrepreneurial activities (e.g., Bloemen-Bekx et al., 2019; Van Auken et al., 2006), we control for having parents who work as entrepreneur. Regarding age, studies have shown that age is negatively related to entrepreneurial activity (Bohlmann et al., 2017). We add gender because compared to female students, male students' attitude toward entrepreneurial activities is more positive, and entrepreneurial intentions are stronger (Liñán and Fayolle, 2015; Strobl et al., 2012).

3.3. Data Analysis and Results

Multilevel analysis.

Our study applies multilevel logistic regression. Due to the dichotomous nature of the dependent variable, a logistic regression is recommended (Field et al., 2012). In a logistic analysis, the results are interpreted as the probability that the dependent variable takes the value of "1" (i.e., that the student is an entrepreneur), rather than a numerical linear coefficient (Sommet and Morselli, 2017). Meanwhile, the multilevel aspect of the analysis serves the structure of our data, in which individual-level variables interact country-level variables. As we examine how the impact of fine-grained, individual-level perceived power distance variates between countries and depends on national context – a perspective mostly neglected in power distance studies (Daniels and Greguras, 2014; Terjesen et al., 2016) – inclusion of data on both individual-level and country-level is inevitable. The structure of such data is incompatible with single-level analysis, as it violates the assumption of

independent observations, and will cause biases in standard errors and regression coefficients (Schmutzler et al., 2019). Furthermore, multilevel analysis allows us to keep variables at their original level, maintaining the variables' meanings (Hox, 2010), avoiding ecological and reverse-ecological fallacy (Kirkman et al., 2017; Schmutzler et al., 2019). We use R-software (R Core Team, 2020) for our analyses and the multilevel logistic regressions are estimated using the *glmmTMB* package (Brooks et al., 2017).

To empirically justify the necessity of multilevel analysis, we calculate the intraclass correlation coefficient type 1 (ICC1). This number represents the proportion of the cross-country variance in the total (i.e., within-country and cross-country) variation (Sommet and Morselli, 2017). A higher value of ICC1 means that there is a larger relationship between the model outcome and the group (in our case, the country) that the respondents come from. In other words, this represents the degree of clustering or similarity among observations within the same group (country). The value of ICC1 is .15. Based on available standards, this value is large enough to justify the multi-level approach method (Scherbaum and Ferreter, 2009).

Because we are interested in individual-level variables, we centre our independent variable, the perceived power distance, by country (Field et al., 2012). To do so, the country's average score on perceived power distances is subtracted the individual's perceived power distance score. Mean centring is appropriate for the nature of our study (Aguinis et al., 2013). That is, individual perceptions are limited to the person's surrounding environments – in our case, the country in which the respondent resides. It is thus only appropriate to interpret an individual's perceived power distance, relative to the corresponding country's average. Therefore, the variance of the independent variable is compared to the country average–a higher score represents higher perceived power distance compared to the country average (Lang et al., 2021). Country-level variables are also mean-centred, albeit on a global level. The independent variable and moderators are standardized in our models, as they are measured on different scales. Table 5.3 reports the descriptive statistics of the individual and country-level variables.

Table 5.1: Distribution of participants across countries

Country	Sample size	Percentage	Country	Sample size	Percentage	Country	Sample size	Percentage
Argentina	2,514	2.35%	Finland	488	0.46%	Morocco	1,628	1.52%
Australia	2,109	1.97%	France	467	0.44%	Panama	3,069	2.86%
Belgium	692	0.65%	Germany	15,438	14.41%	Peru	1,221	1.14%
Brazil	7,114	6.64%	Greece	602	0.56%	Poland	6,088	5.68%
Canada	285	0.27%	Hungary	5,030	4.69%	Portugal	4,036	3.77%
Chile	5,829	5.44%	Ireland	745	0.70%	Russia	3,931	3.67%
China	2,456	2.29%	Italy	3,714	3.47%	Slovakia	3,095	2.89%
Colombia	3,633	3.39%	Japan	1,432	1.34%	Slovenia	499	0.47%
Croatia	1,483	1.38%	Kazakhstan	227	0.21%	Spain	6,857	6.40%
Ecuador	7,788	7.27%	Korea	2,408	2.25%	Sweden	566	0.53%
El Salvador	4,162	3.88%	Macedonia	116	0.11%	Switzerland	2,758	2.57%
England	975	0.91%	Malaysia	126	0.12%	Uruguay	1,338	1.25%
Estonia	763	0.71%	Mexico	1,153	1.08%	United States	321	0.30%

Table 5.2: Demographic information of the data for the third essay

Gender	
Male	44,602
Female	62,554
Study level	
Bachelor	86,715
Master	15,517
Other (MBA, PhD…)	4,553
No answer	371
Study domain	
Arts / Humanities (e.g., linguistics, cultural studies, religion, philosophy, history)	7,758
Engineering (incl. computer sciences and architecture)	28,013
Human medicine / health sciences	9,154
Law & Economics (incl. business sciences)	34,798
Mathematics and natural sciences	5,053
Science of art (e.g., art, design, dramatics, music)	1,891
Social sciences (e.g., psychology, politics, educational science)	9,530
Other	10,803
No answer	156

Table 5.4 displays the bivariate correlations between the dependent and independent variables. The majority of correlations is significant, yet low in magnitude. This result implies that although there are significant connections between variables, no variable plays

a disproportionately prominent role in later analyses, and models are less likely to suffer from multicollinearity issues (Field et al., 2012).

Testing hypotheses.

Table 5.5 shows the summarized results of the logistic multilevel regression models. We add variables to the models in a stepwise fashion. We first analysed a null model in which we only included the control variables (age, gender and having entrepreneurial parents), as shown in Table 5.5, Model 0. The directions of the effects are consistent across all estimated models. Having entrepreneurial parents are positively related to entrepreneurial activities (b = 0.80; p <.001), while the variable of gender is negatively related to entrepreneurial activities (b = -0.51; p <.001). Contrary to our prior expectation, age is positively related to entrepreneurial activities (b = 0.55; p <.001).

Next, we add the variables incrementally, starting with the fixed slope of perceived power distance. Hypothesis 1 predicts that perceived power distance has a negative relationship with entrepreneurial activities. Yet, the results of Model 1 do not support our hypothesis: the level of perceived power distance is not significantly related to entrepreneurial activities (b = 0.00, p =.763).

To test whether the effect of perceived power distance is contingent upon the country, we allowed the coefficient of the perceived power distance to vary randomly across countries. The log-likelihood ratio test shows a significant model improvement when we add the random slope of perceived power distance to the model ($\chi^2(2) = 18.11$, p <.001), as reported in Table 5.5, Model 2. To illustrate the effects of power distance in different countries, we plot the slope coefficients in Figure 5.1. The number of countries with a positive coefficient is 23, while 16 countries have negative coefficients. The results so far show how the common approach of aggregating power distance on country-level may overlook cross-country nuances. Studying power distance below country-level (in this case, individual level) is therefore a necessary addition to fully explore its impact on entrepreneurial activities (Kirkman et al., 2017; Taras et al., 2010).

Table 5.3: Descriptive statistics of the data for the third essay

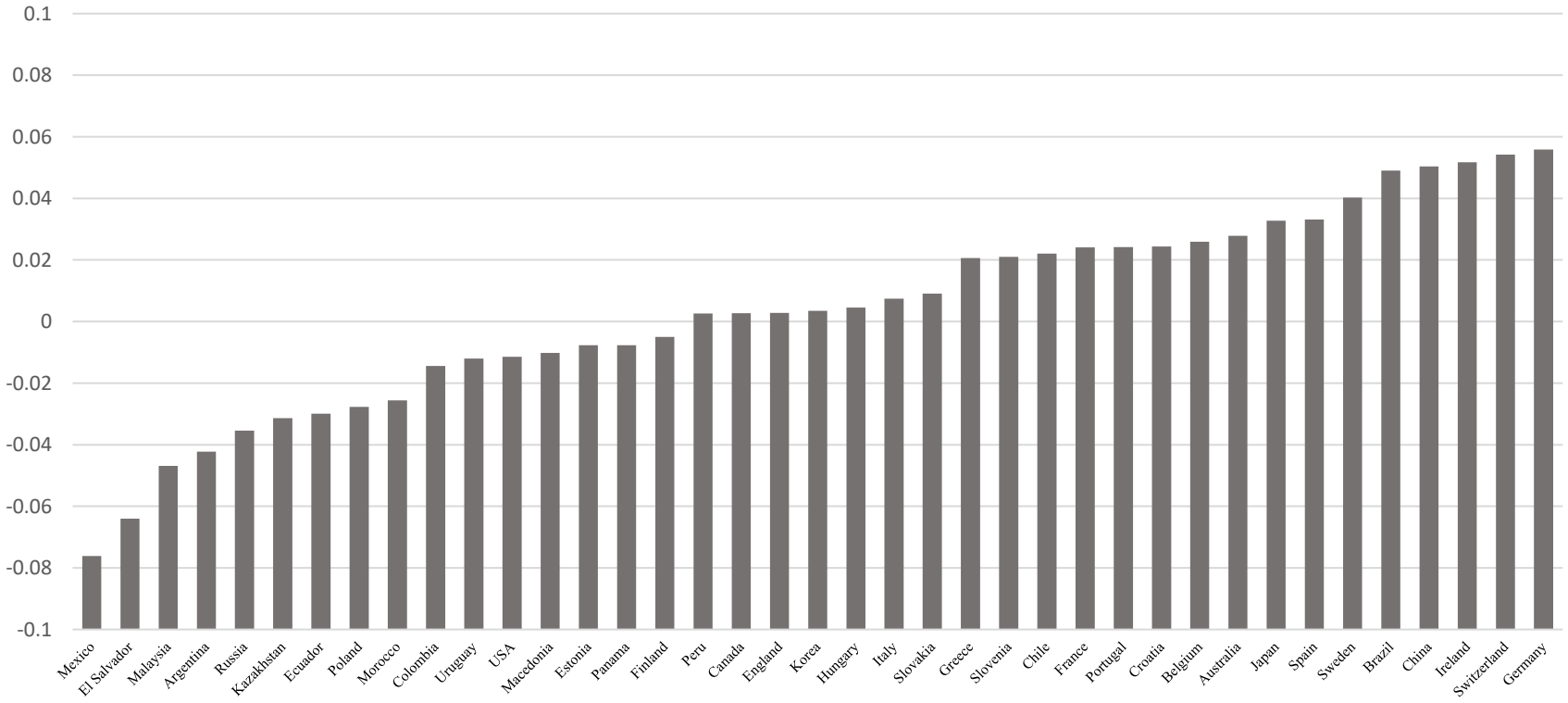
Variable	N	Mean	SD	Min	Max
Age	107,156	23.8	4.5	18	51
Perceived power distance	107,156	4.7	1.5	1	7
Regulatory dimension	39	4.1	0.8	2.7	5.6
Normative dimension	39	61.0	7.9	44.4	77.1
Cognitive dimension	39	46.9	13.0	12.2	71.3

Table 5.4: Correlation matrix between dependent and independent variables

		(1)	(2)	(3)	(4)	(5)
(1)	**Entrepreneurial activities**	1				
(2)	**Perceived power distance**	.01 ***	1			
(3)	**Regulatory dimension (global-mean-centered)**	-.02 ***	.00 ***	1		
(4)	**Normative dimension (global-mean-centered)**	.07 ***	.00	-.08 ***	1	
(5)	**Cognitive dimension (global-mean-centered)**	.10 ***	.00 ***	-.22 ***	.24 ***	1

**** p < .01, ** p < .05, * p < .10,*

Figure 5.1: Random slope of independent variable – Model 2 (no moderator)



In the next model, Model 3, we add the interacting effects of the institutional dimensions in order to explain how the individual-level perceived power distance is contingent upon different country institutional profiles – as reflected in our Hypotheses 2, 3 and 4. Compared to Model 2, adding the cross level interactions to Model 3 improved model fit ($\chi^2(6) = 23.52$, $p < .001$) and reduced the variation in the random slope significantly (from 0.07 to 0.03). These results already indicate that the country institutional profile (partially) explain why the effect of perceived power distance varies between countries. More specifically, the results of Model 3 indicate that the normative dimension of country institutional profile significantly moderates the impact of perceived power distance ($b = 0.05$, $p < .001$). Our third hypothesis is therefore confirmed. In contrast, the cognitive dimension of the country institutional profile has a negative interaction with perceived power distance ($b = -0.03$, $p = .031$). Finally, the regulatory dimension does not interact with perceived power distance ($b = 0.02$, $p = .163$).

Significance of interaction term across all observations.

The interaction terms displayed in Table 5.5 represents the marginal effect when all involved variables are zero (Cohen et al., 2014). However, unlike in linear regression analyses where the magnitude and significance of the interaction term is independent of predictors, and therefore universal along all observations (Ai and Norton, 2003; McCabe et al., 2020), the magnitude and significance of the interaction terms in logistic regressions are contingent on the specific values of model predictors (Ai and Norton, 2003; McCabe et al., 2020). Therefore, to evaluate the robustness and significance of the interaction effect across all observations, estimation at multiple values of the predictors is necessary (McCabe et al., 2020). One way to validate this, is by running the model with the independent variable plus and minus 1 standard deviation, and observe the changes in interaction terms (Sommet and Morselli, 2017). As illustrated in Table 5.6, there is no noticeable change in either magnitude or significance of interaction terms. The results for our hypotheses are, therefore, consistent across three points.

4. Discussion

Since the emergence of Hofstede's model of national culture in the 1980s, an enormous body of literature on the impact of cultural dimensions on entrepreneurial activities has been generated. Among them, power distance appeared to be negatively related to entrepreneurial activities, and this seems to be consistent across countries (Bogatyreva et al., 2019; Lee & Peterson, 2000; Liñán & Fernandez-Serrano, 2014; Mitchell et al., 2000; Oo et al., 2018; Shane, 1993; Shane, 1992). To date, however, power distance has mainly been examined as a country-level variable, with one score representing the power distance of all country residents. Our paper follows the argument that adopting a single focus on country-level power distance overlooks within-country variation, commits ecological fallacy, and ignores the cross-country context and importance of differences in the perception of power distance (Clugston, 2000; Farh et al., 2007; Kirkman et al., 2009, 2017). By using individual-level perceived power distance as independent variable and adopting a multi-level analysis approach, we follow recent calls to examine power distance on a fine-grained, sub-country level of analysis (Daniels and Greguras, 2014; Kirkman et al., 2017; Taras et al., 2010; Terjesen et al., 2016). We apply this viewpoint to a worldwide database.

The result shows that the effect of power distance varies widely between countries. The variance, portrayed in Figure 5.1, suggests that higher perceived (individual) power distance is *not* necessarily detrimental to entrepreneurial activities. It is important to note that this result is not automatically in conflict with the existing consensus that (national) power distance is detrimental to entrepreneurship. Following researchers such as McMullen and Shepherd (2006) and Shane and Venkataraman (2000), we take the position that the choice to pursue entrepreneurial activities is predominantly an individual-level decision, influenced by external factors. Focusing specifically on individual-level variation in our statistical analyses is, therefore, necessary. This focus is reflected in our statistical analyses, in which we remove power distance differences between countries (Field et al., 2012; Sommet and Morselli, 2017). This implies that our individual-level results add to existing national-level studies by showing that entrepreneurial activities are influenced by power distance on multiple levels. This, in turn, stresses the need for taking into account various levels of analysis while stimulating entrepreneurial activities (Kirkman et al., 2006, 2017).

Our results show that the direction and strength of the impact that perceived power distance has on entrepreneurial activities varies between countries. We therefore add country-level context and hypothesized that the impact of individual-level perceived power distance is moderated by the country's entrepreneurial institutional profile, represented by a regulatory, cognitive, and normative dimension (Busenitz et al., 2000; Kostova, 1997; Scott, 1995). Our cross-level interactions show a positive interaction between the normative dimension and perceived power distance. Using the ggplot2 package in the R software (Wickham and Chang, 2014), we visualized this moderating effect in Figure 5.2. In this figure, the countries are divided into three groups: countries with high normative institution (higher than 1 standard deviation of this variable), countries with low normative institution (lower than minus 1 standard deviation), and countries with medium normative institution (remaining countries). This figure shows that countries with higher entrepreneurial normative institution have a more positive relationship between power distance and entrepreneurial activities – represented by the positive slope.

This confirms our arguments for hypothesis 2. In particular, we explained that entrepreneurial activities lack legitimacy and approval in a high power distance environment, as people favour established and conventional economic activities (Bruton et al., 2010; Hofstede, 2001). A well-developed normative entrepreneurial institution, in turn, implies that entrepreneurial activities are widely endorsed and normalized. As such, the aforementioned need of approval and legitimacy is satisfied, and potential entrepreneurs with high perceived power distance will find their career choice in line with – rather than at odd with – the normative expectation.

The negative moderating effect of the national cognitive dimension is different from what we hypothesized. Similar to the moderating effect of normative institution, we visualized the moderating effect of cognitive institution in Figure 5.3. As discussed, the cognitive dimension stands for the dispersion of entrepreneurial knowledge within a country – and is not to be confused with individual-level entrepreneurial self-efficacy (Busenitz et al., 2000). We argued that this dispersion of knowledge mitigates the negative impact of the perceived barrier towards an entrepreneurial career, caused by an unequal distribution of resources, information and opportunities (and thus high perceived power distance) (Bogatyreva et al., 2019; Mitchell et al., 2000). The negative interaction we found between the individual-level

perceived power distance and the country-level cognitive institutional dimension might suggest that the moderating effect of the cognitive dimension is more nuanced than expected. For example, even though entrepreneurial knowledge might be dispersed relatively widely on a national level, the individual-level accessibility to such knowledge might still be affected by individual-level power distance. Cadenas et al., (2020), for example, show that underrepresented student groups have more difficulties accessing knowledge and education. This effect is also partially reflected in our analyses. As displayed in Table 5.6, Model 5 (which involves adding 1 standard deviation to perceived power distance, representing the lower end of the perceived power distance spectrum) – shows a higher effect of the cognitive dimension. In other words, individuals with higher perceived power distance appear to be less likely to pursue entrepreneurial activities when they are surrounded by more well-dispersed entrepreneurial knowledge.

Finally, our results show that the interaction between the entrepreneurial regulatory dimension and perceived power distance does not hold. To better understand this results, a more fine-grained analysis of the implementation and operationalization of governmental programs might be useful. For example, corruption showed to be negatively related to innovativeness and entrepreneurial activities (e.g., Jain, 2001; Rodriguez-Pose & di Cataldo, 2015). Corruption might hamper potentially positive regulatory interventions. In addition, power distance itself correlates to corruption and slower of bureaucratic procedures (Lewellyn and Bao 'Rosey,' 2017; Sims et al., 2012).

All in all, although not all hypotheses were confirmed, the results of our multilevel models prove the necessity to include country-level variables such as the institutional profile to examine the impact of individual perceptions of a cultural variable such as power distance. This perspective has great potential for future examination of cross-level interactions.

Apart from the aforementioned theoretical contribution, our results strongly suggest looking at stimulating entrepreneurship from a fine-grained individual level. That is because entrepreneurial activities are individual-level decisions, and therefore using conclusions taken from country-level analyses to formulate policies and measures to promote entrepreneurship may imply inaccuracies. One of the most prominent potential problems is the ecological fallacy (Kirkman et al., 2017). This fallacy occurs when group averages are

used to substitute individual scores. A negative relationship between power distance and entrepreneurship on the country level cannot guarantee whether a similar relationship can be found on the individual level (Taras et al., 2010). For instance, it is possible that the majority of the population holds a positive relationship between power distance and entrepreneurship, but a minority holds an extremely negative relationship that skews the national average. Country-level analysis cannot find a solution for such a possibility. Additionally, the conventional country-level approach to national culture often assumes that cultures are homogenous within a country. This is due to the limitation of the data, as the scores for cultures are aggregated at the country level. Analyses and practical implications following this assumption are, therefore, limited to acknowledging the national culture and formulating policies to compensate for their effects (e.g. Oo et al., 2018; Urbano et al., 2016).

Compared to the conventional country-level approach to national culture, we argue that our fine-grained, individual-level analysis of culture and entrepreneurship provides more approachable and feasible implications for governments and policymakers. While national cultures are very hard to alter, (Hofstede, 2001; House et al., 2004), the individuals' perception of culture can still widely vary within a country, based on their living conditions. We suggest governments and policymakers to further understand this variance of culture – such as power distance – within their own country, and formulate policies and institutions that match their own observation. This individual-level approach is more appropriate for stimulating entrepreneurship – considering how entrepreneurial activities are individual-level decisions rather than country-level behaviours (McMullen and Shepherd, 2006; S. Shane and Venkataraman, 2000). More importantly, this approach is more feasible, as governments can easily access and impact their domestic statistics. Governments can record the population's perception of power distance (along with other dimensions of national culture), and find the pattern of variation for their national culture. Such knowledge can be combined with policies and measures to locally and selectively promote entrepreneurship, such as issuing regulations that favour business creation (Busenitz et al., 2000) or stimulating entrepreneurial knowledge by promoting education (Pittaway and Cope, 2007). These measures are relatively more achievable and more promising than broadly issuing nationwide policies to compensate for national cultures that, on average, have a negative impact on entrepreneurial activities.

Figure 5.2: Visualization of the moderating effect of Normative institution

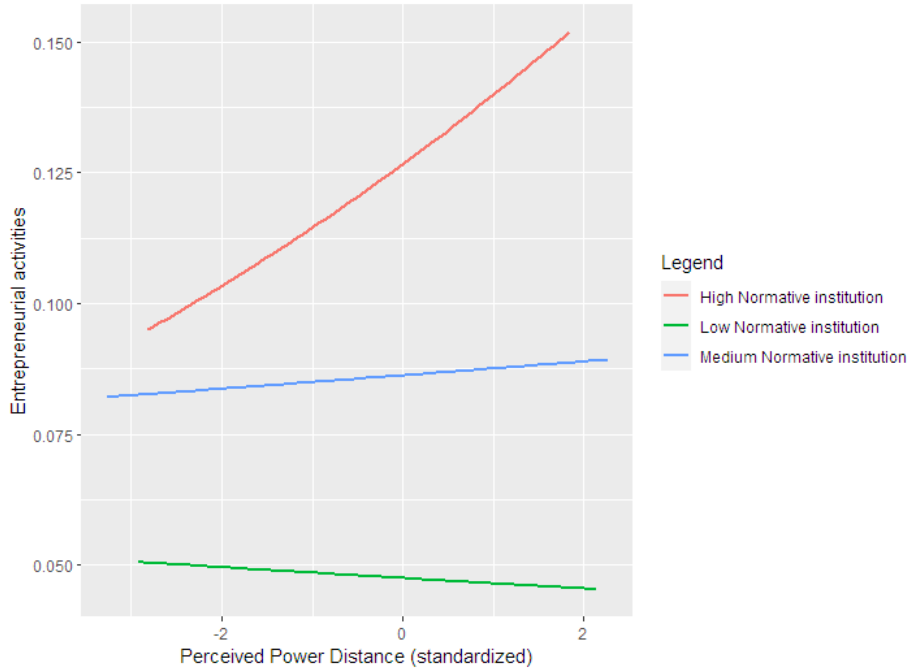


Figure 5.3: Visualization of the moderating effect of Cognitive institution

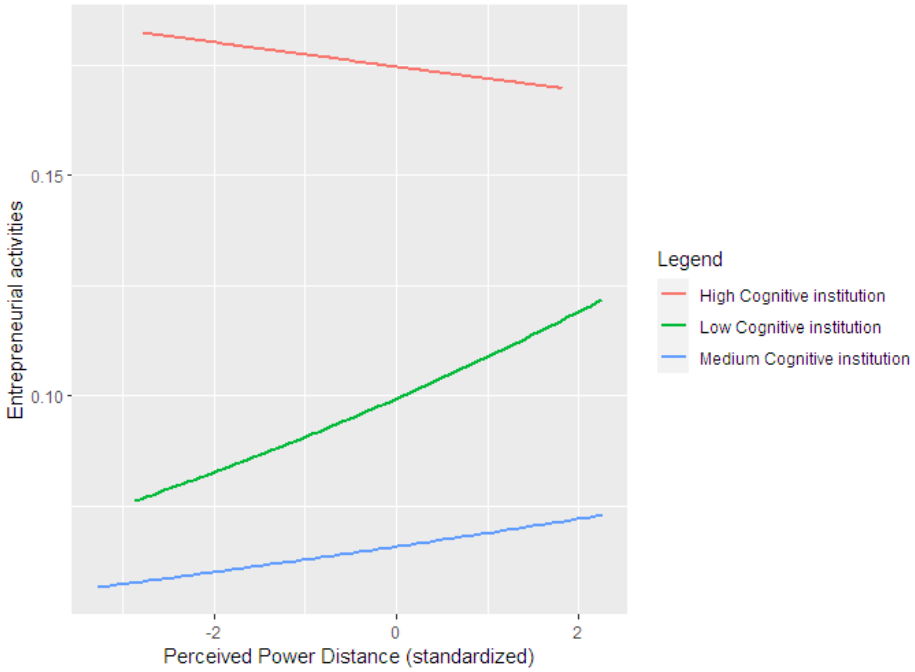


Table 5.5: Coefficients and significant level (standardized data)

	Model 0	Model 1	Model 2	Model 3	VIF (model 3)
Fixed part estimates					
Individual level (level 1)					
Intercept	-2.69 (<.001) ***	-2.69 (<.001) ***	-2.69 (<.001) ***	-2.67 (<.001) ***	
Age	0.55 (<.001) ***	0.55 (<.001) ***	0.55 (<.001) ***	0.55 (<.001) ***	1.03
Gender (0 = Male)	-0.51 (<.001) ***	-0.51 (<.001) ***	-0.51 (<.001) ***	-0.51 (<.001) ***	1.00
Entrepreneurial parents	0.80 (<.001) ***	0.80 (<.001) ***	0.80 (<.001) ***	0.80 (<.001) ***	1.03
Perceived power distance		-0.00 (.763) (ns)	0.01 (.765) (ns)	0.01 (.548) (ns)	1.14
Country level (level 2)					
Regulatory dimension				0.04 (.720) (ns)	1.22
Normative dimension				0.05 (.659) (ns)	1.30
Cognitive dimension				0.22 (.078) *	1.48

Table 5.5 (continue)

	Model 0	Model 1	Model 2	Model 3	VIF (model 3)
Cross-level interactions					
Regulatory dimension * PPD				0.02 (.163) (ns)	1.34
Normative dimension * PPD				0.05 (<.001) ***	1.18
Cognitive dimension * PPD				-0.03 (.031) **	1.56

Table 5.5 (continue)

	Model 0	Model 1	Model 2	Model 3	VIF (model 3)
Random part estimates					
Level-1 sample size	107,156	107,156	107,156	107,156	-
Level-2 sample size	39	39	39	39	-
Variance of random intercept (95% confidence interval)	0.71 (0.57 – 0.90)	0.71 (0.56 – 0.90)	0.71 (0.57 – 0.90)	0.67 (0.53 - 0.85)	-
Variance of random slope - perceived power distance (95% confidence interval)			0.07 (0.04 – 0.11)	0.03 (0.01 – 0.07)	-
Model Fit Statistics					
Change in Deviance	-	0.09	18.11	23.52	-
Δ df	-	1	2	6	-
p-value		.763 (ns)	<.001	<.001	-
Pseudo R-squared (Marginal)	.12	.12	.12	.14	-
Pseudo R-squared (Conditional)	.23	.23	.24	.24	-

**** p < .01, ** p < .05, * p < .10,*

Table 5.6: Model 3 – mean score of Perceived power distance, plus & minus 1 standard deviation

	Model 3	Model 4 (-1sd)	Model 5 (+1sd)
Fixed part estimates			
Individual level (level 1)			
Intercept	-2.67 (<.001) ***	-2.66 (<.001) ***	-2.69 (<.001) ***
Age	0.55 (<.001) ***	0.55 (<.001) ***	0.55 (<.001) ***
Gender (0 = Male)	-0.51 (<.001) ***	-0.51 (<.001) ***	-0.51 (<.001) ***
Entrepreneurial parents	0.80 (<.001) ***	0.80 (<.001) ***	0.80 (<.001) ***
Perceived power distance	0.01 (.547) (ns)	0.01 (.548) (ns)	0.01 (.548) (ns)
Country level (level 2)			
Regulatory dimension	0.04 (.720) (ns)	0.06 (.529) (ns)	0.01 (.917) (ns)
Normative dimension	0.05 (.659) (ns)	0.12 (.246) (ns)	-0.02 (.832) (ns)
Cognitive dimension	0.23 (.078) *	0.19 (.125) (ns)	0.26 (.054) *

Table 5.6 (continue)

Cross-level interactions			
Regulatory dimension * PPD	0.02 (.163) (ns)	0.02 (.163) (ns)	0.02 (.164) (ns)
Normative dimension * PPD	0.05 (<.001) ***	0.05 (<.001) ***	0.05 (<.001) ***
Cognitive dimension * PPD	-0.03 (.031) **	-0.03 (.031) **	-0.03 (.032) **
Random part estimates			
Level-1 sample size	107,156	107,156	107,156
Level-2 sample size	39	39	39
Variance of random intercept (95% confidence interval)	0.67 (0.53 - 0.85)	0.67 (0.54 – 0.85)	0.67 (0.54 – 0.85)
Variance of random slope - perceived power distance (95% confidence interval)	0.03 (0.01 – 0.07)	0.03 (0.01 – 0.07)	0.03 (0.01 – 0.07)

*** $p < .01$, ** $p < .05$, * $p < .10$,

Limitations and Direction for Further Studies

Since the individual-level approach is still relatively novel compared to the conventional country-level approach, there is still much room for research, both in terms of theory development and methodology. We provide four future research suggestions.

First, we showed that within a country, power distance can indeed be perceived vastly differently across individuals. By doing so, we added to studies arguing that power distance on a country level – as is the case for all culture-related constructs – is considered to be self-reinforcing and inert (Hofstede, 2001; House et al., 2004). However, the cause of such differences is beyond the scope of our study. Future studies could further examine the viewpoint that the subjective nature of perception implies that perceived cultural influencers are not only determined by national culture, but are also heavily influenced by personal and unique experiences. They could, for example, examine how power distance is perceived differently given different contexts, or add other personal determinants to study entrepreneurial activities. Personality traits such as individualism could, for example, make individuals more susceptible to hierarchy and power structure, which – in turn – could result in higher levels of perceived power distance.

Second, literature on cultural aspects, including power distance, differentiates between cultural values and cultural practices. While the former involves the expectation of behaviour and answers the question of "what it should be", the latter involves the actual observation and evaluation, answering the question of "what it is/what is happening" (Autio et al., 2013; Daniels and Greguras, 2014; Hofstede, 2001; House et al., 2004). These two approaches, while related to the same subject, have vastly different interpretations and implications. When examining cultural values and practices on an individual level, the distinction between these two constructs is highly relevant. Existing approaches on individual-level power distance – such as power distance belief (Farh et al., 2007) or power distance orientation (Kirkman et al., 2009) – mostly focus on cultural "values". As our paper focuses on the perception and evaluation of power distance, it can only cover the "practices" category. Prior studies have provided arguments for the difference between the "values" and "practices" approaches. For example, although it is argued that the latter provides more accuracy and consistency in entrepreneurship studies (Autio et al., 2013; Stephan and Uhlaner, 2010),

certain mechanisms such as cultural leadership ideals (Stephan and Pathak, 2016) only channel the influence of cultural values – and not practices – on entrepreneurial behaviours. Future studies could therefore take into account both approaches, and as such examine both the perception of the surrounding environment, as well as the evaluation of the feasibility of entrepreneurial endeavours (Autio et al., 2013; Daniels and Greguras, 2014; McMullen and Shepherd, 2006).

Third, we selected the country institutional profile as moderating variable. Although this is an effective method to represent countries' condition, we recognize that these are not the only choice for country-level variables. Future studies could expand upon other highly relevant moderating contextual factors, such as economic development (Urbano et al., 2016; Wong et al., 2005), innovativeness, technological transfers (Levie and Autio, 2008), and corruption level (Jain, 2001; Rodriguez-Pose & di Cataldo, 2015; Sims et al., 2012) to create a more holistic understanding of the mechanism via which power distance operates. More complicated multilevel models can be applied to elaborate on the intertwined, mutually dependent antecedents of entrepreneurial activities, e.g., the aforementioned potential relationship between the effectiveness of the regulatory dimension and government efficiency, or the impact of power distance on the accessibility to entrepreneurial knowledge.

Fourth, we only include two levels of analysis in our models – individual and country level. Future researchers could further expand the multilevel approach with more fine-grained, sub-national measurements for power distance (Kirkman et al., 2017; Terjesen et al., 2016). As such, the level of analysis could be expanded beyond the country- and individual-level, as other levels of analysis such as the university, city, or region are potentially meaningful yet currently understudied (Terjesen et al., 2016). Power distance is not the only topic of culture that is examined predominantly from country-level value perspective. The method applied in this paper, therefore, can be repeated on other cultural aspects. The domain of relationship between cultural aspects and entrepreneurial activities, despite having been initialized decades ago, is still full of unexplored questions and research potentials.

Fifth, and finally, our dataset implies certain shortcomings. By including only students that are either an active entrepreneur or not involved in entrepreneurship at all, we exclude respondents who identify as "nascent entrepreneurs." Nascent entrepreneurs, in GUESSS

database, are students who are in the process of founding a business. Their current progress range from writing business plans, contacting potential customers to beginning to sell products (Sieger et al., 2016). By not taking this group into account, we can better focus on the dichotomous distinctions between students who have been involved in entrepreneurial activities and ones who have not. However, we recognize that nascent entrepreneurs is a necessary "middle step" between the two states. Future studies can examine the whole gradient of student entrepreneurship, including the progression of nascent entrepreneurship in formulating entrepreneurial activities.

On top of that, our data is limited to a student population. While using a student population has certain advantages such as homogeneity within the dataset, we recognize that this dataset does not necessarily represent the whole societal population. We have no clear information regarding how the student dataset makes our analyses and results biased. For example, while students are within a hierarchal academic environment, it is unclear whether this environment makes the perception of power distance more or less pronounced, compared to other conventional societal relationships. Future studies can mitigate this limitation by expanding the data collection toward a wider audience, which includes both students and adults from a wide variety of ages, economic backgrounds, beliefs and biases, etc.

References

Aguinis, H., Gottfredson, R. K., and Culpepper, S. A. (2013). Best-Practice Recommendations for Estimating Cross-Level Interaction Effects Using Multilevel Modeling. In Journal of Management (Vol. 39, Issue 6). https://doi.org/10.1177/0149206313478188

Ai, C., and Norton, E. C. (2003). Interaction terms in logit and probit models. Economics Letters, 80(1), 123–129. https://doi.org/10.1016/S0165-1765(03)00032-6

Autio, E., Pathak, S., and Wennberg, K. (2013). Consequences of cultural practices for entrepreneurial behaviours. Journal of International Business Studies, 44(4), 334–362. https://doi.org/10.1057/jibs.2013.15

Baumol, W. J., and Strom, R. J. (2007). Entrepreneurship and economic growth. Strategic Entrepreneurship Journal, 1(3–4), 233–237.

Bergmann, H., Hundt, C., and Sternberg, R. (2016). What makes student entrepreneurs? On the relevance (and irrelevance) of the university and the regional context for student start-ups. Small Business Economics, 47(1), 53–76. https://doi.org/10.1007/s11187-016-9700-6

Bloemen-Bekx, M., Voordeckers, W., Remery, C., and Schippers, J. (2019). Following in parental footsteps? The influence of gender and learning experiences on entrepreneurial intentions. International Small Business Journal: Researching Entrepreneurship, 37(6), 642–663. https://doi.org/10.1177/0266242619838936

Bogatyreva, K., Edelman, L. F., Manolova, T. S., Osiyevskyy, O., and Shirokova, G. (2019). When do entrepreneurial intentions lead to actions? The role of national culture. Journal of Business Research, 96(May 2018), 309–321. https://doi.org/10.1016/j.jbusres.2018.11.034

Bohlmann, C., Rauch, A., and Zacher, H. (2017). A lifespan perspective on entrepreneurship: Perceived opportunities and skills explain the negative association between age and entrepreneurial activity. Frontiers in Psychology, 8(DEC), 1–11. https://doi.org/10.3389/fpsyg.2017.02015

Bosma, N., Hessels, J., Schutjens, V., Praag, M. Van, and Verheul, I. (2012). Entrepreneurship and role models. Journal of Economic Psychology, 33(2), 410–424. https://doi.org/10.1016/j.joep.2011.03.004

Bosma, N., Hill, S., Ionescu-Somers, A., Kelley, D., Guerrero, M., and Schott, T. (2021). GEM 2020/2021 Global Report.

Bouncken, R. B., Cesinger, B., and Kraus, S. (2014). The role of entrepreneurial risks in the intercultural context: A study of MBA students in four nations. European Journal of International Management, 8(1), 20–54. https://doi.org/10.1504/EJIM.2014.058483

Brooks, M. E., Kristensen, K., van Benthem, K. J., Magnusson, A., Berg, C. W., Nielsen, A., Skaug, H. J., Mächler, M., and Bolker, B. M. (2017). glmmTMB balances speed and flexibility among packages for zero-inflated generalized linear mixed modeling. R Journal, 9(2), 378–400. https://doi.org/10.32614/rj-2017-066

Bruton, G. D., Ahlstrom, D., and Li, H. L. (2010). Institutional theory and entrepreneurship: Where are we now and where do we need to move in the future? Entrepreneurship: Theory and Practice, 34(3), 421–440. https://doi.org/10.1111/j.1540-6520.2010.00390.x

Busenitz, L. W., Gomez, C., and Spencer, J. W. (2000). Country Institutional Profiles : Unlocking Entrepreneurial Phenomena. Academy of Management Journal, 43(5), 994–1003.

Cadenas, G. A., Cantú, E. A., Lynn, N., Spence, T., and Ruth, A. (2020). A programmatic intervention to promote entrepreneurial self-efficacy, critical behaviour, and technology readiness among underrepresented college students. Journal of Vocational Behaviour, 116(January 2019), 103350. https://doi.org/10.1016/j.jvb.2019.103350

Clugston, M. (2000). Multiple Bases and Foci of Commitment ? Journal of Management, 26(1), 5–30.

Cohen, P., West, S., and Aiken, L. (2014). Applied Multiple Regression/Correlation Analysis for the Behavioural Sciences. In Psychology press.
Côté, S., House, J., and Willer, R. (2015). High economic inequality leads higher-income individuals to be less generous. Proceedings of the National Academy of Sciences of the United States of America, 112(52), 15838–15843. https://doi.org/10.1073/pnas.1511536112
Daniels, M. A., and Greguras, G. J. (2014). Exploring the Nature of Power Distance: Implications for Micro- and Macro-Level Theories, Processes, and Outcomes. Journal of Management, 40(5), 1202–1229. https://doi.org/10.1177/0149206314527131
Davidsson, P. (1995). Culture, structure and regional levels of entrepreneurship. Entrepreneurship and Regional Development, 7(1), 41–62. https://doi.org/10.1080/08985629500000003
De Clercq, D., Danis, W. M., and Dakhli, M. (2010). The moderating effect of institutional context on the relationship between associational activity and new business activity in emerging economies. International Business Review, 19(1), 85–101. https://doi.org/10.1016/j.ibusrev.2009.09.002
De Clercq, D., Lim, D. S. K., and Oh, C. H. (2013). Individual-level resources and new business activity: The contingent role of institutional context. Entrepreneurship: Theory and Practice, 37(2), 303–330. https://doi.org/10.1111/j.1540-6520.2011.00470.x
DiMaggio, P. J., and Powell, W. W. (1983). The Iron Cage Revisited : Institutional Isomorphism and Collective Rationality in Organizational Fields Author (s): Paul J . DiMaggio and Walter W . Powell Published by : American Sociological Association Stable URL : http://www.jstor.org/stable/2095101. American Sociological Review, 48(2), 147–160.
Farh, J. L., Hackett, R. D., and Liang, J. (2007). Individual-level cultural values as moderators of perceived organizational support-employee outcome relationships in China: Comparing the effects of power distance and traditionality. Academy of Management Journal, 50(3), 715–729. https://doi.org/10.5465/amj.2007.25530866
Field, A., Miles, J., and Field, Z. (2012). Discovering statistics using R. In Sage publications. https://doi.org/10.5860/choice.50-2114
GEM. (2017). Global Entrepreneurship Monitor 2016/17 Global Report.
Hayton, J. C., George, G., and Zahra, S. A. (2002). Entrepreneurship: National Culture and A Review of Behavioural Research. Entrepreneurship Theory and Practice, 26(4), 33–52.
Hofstede, G. (2001). Comparing Values, Behaviours, Institutions and Organizations Across Nations (2nd ed.). Sage Publications, Thousand Oaks, California.
Hofstede Insights. (2022). Country Comparison - Hofstede Insights. Hofstede Insights. https://www.hofstede-insights.com/country-comparison/
Holienka, M., Gal, P., and Kovačičova, Z. (2017). Understanding student entrepreneurs: Doers, procrastinators, dreamers, and abstainers. Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis, 65(6), 1935–1944. https://doi.org/10.11118/actaun201765061935
Holienka, M., Gál, P., and Kovačičová, Z. (2017). Drivers of student entrepreneurship in visegrad four countries: Guesss evidence. Central European Business Review, 6(2), 54–63. https://doi.org/10.18267/J.CEBR.180
House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., and Gupta, V. (2004). Culture, leadership, and organizations: The GLOBE study of 62 societies. In Handbook of Intercultural Training. Sage publications.
Hox, J. J. (2010). Multilevel Analysis Techniques and Applications. Routledge.
Jager, J., Putnick, D. L., and Bornstein, M. H. (2017). More Than Just Convenient: the Scientific Merits of Homogeneous Convenience Samples. Monographs of the Society for Research in Child Development, 82(2), 13–30. https://doi.org/10.1111/mono.12296
Jain, A. K. (2001). Corruption: A Review. Journal of Economic Surveys, 15(1), 71–121.
Jain, S. S., and Jain, S. P. (2018). Power distance belief and preference for transparency. Journal of Business Research, 89(April), 135–142. https://doi.org/10.1016/j.jbusres.2018.04.016

Jansen, S., van de Zande, T., Brinkkemper, S., Stam, E., and Varma, V. (2015). How education, stimulation, and incubation encourage student entrepreneurship: Observations from MIT, IIIT, and Utrecht University. International Journal of Management Education, 13(2), 170–181. https://doi.org/10.1016/j.ijme.2015.03.001

Kelley, D., Singer, S., and Herrington, M. (2016). Global Entrepreneurship Monitor 2015/16 Global Report.

Kirkman, B. L., Chen, G., Farh, J.-L., Chen, Z. X., and Lowe, K. B. (2009). Individual Power Distance Orientation and Follower Reactions to Transformational Leaders : A Cross-Level, Cross-Cultural Examination. Academy of Management Journal, 52(4), 744–764.

Kirkman, B. L., Lowe, K. B., and Gibson, C. B. (2006). A quarter century of culture's consequences: A review of empirical research incorporating Hofstede's cultural values framework. Journal of International Business Studies, 37(3), 285–320. https://doi.org/10.1057/palgrave.jibs.8400202

Kirkman, B. L., Lowe, K. B., and Gibson, C. B. (2017). A retrospective on Culture's Consequences: The 35-year journey. Journal of International Business Studies, 48(1), 12–29. https://doi.org/10.1057/s41267-016-0037-9

Klapper, L., Laeven, L., and Rajan, R. (2004). Barriers to entrepreneurship. NBER Working Paper, 10380, 1–61.

Kostova, T. (1997). Country Institutional Profiles: Concept and Measurement. Academy of Management Proceedings, 1997(1), 180–184. https://doi.org/10.5465/ambpp.1997.4981338

Lang, J. W. B., Bliese, P. D., and Runge, J. M. (2021). Detecting Consensus Emergence in Organizational Multilevel Data: Power Simulations. Organizational Research Methods, 24(2), 319–341. https://doi.org/10.1177/1094428119873950

Lee, H., Lalwani, A. K., and Wang, J. J. (2020). Price No Object!: The Impact of Power Distance Belief on Consumers' Price Sensitivity. Journal of Marketing, 84(6), 113–129. https://doi.org/10.1177/0022242920929718

Lee, S. M., and Peterson, S. J. (2000). Culture, entrepreneurial orientation, and global competitiveness. Journal of World Business, 35(4), 401–416. https://doi.org/10.1016/S1090-9516(00)00045-6

Leiva, J. C., Mora-Esquivel, R., and Solís, M. (2023). Nascent entrepreneurship in university students: the role of the context. Venture Capital, 25(3), 255–284. https://doi.org/10.1080/13691066.2023.2171318

Levie, J., and Autio, E. (2008). A theoretical grounding and test of the GEM model. Small Business Economics, 31(3), 235–263. https://doi.org/10.1007/s11187-008-9136-8

Lewellyn, K. B., and Bao 'Rosey,' S. (2017). The role of national culture and corruption on managing earnings around the world. Journal of World Business, 52(6), 798–808. https://doi.org/10.1016/j.jwb.2017.07.002

Li, T. (2018). Internationalisation and its determinants:A hierarchical approach. International Business Review, 27(4), 867–876. https://doi.org/10.1016/j.ibusrev.2018.01.009

Lin, E., Lin, T. M. Y., and Lin, B. W. (2010). New high-tech venturing as process of resource accumulation. Management Decision, 48(8), 1230–1246. https://doi.org/10.1108/00251741011076762

Liñán, F., and Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions: citation, thematic analyses, and research agenda. International Entrepreneurship and Management Journal, 11(4), 907–933. https://doi.org/10.1007/s11365-015-0356-5

Liñán, F., and Fernandez-Serrano, J. (2014). National culture, entrepreneurship and economic development: Different patterns across the European Union. Small Business Economics, 42(4), 685–701. https://doi.org/10.1007/s11187-013-9520-x

McCabe, C. J., Halvorson, M. A., King, K. M., Cao, X., and Kim, D. S. (2020). Estimating and interpreting interaction effects in generalized linear models of binary and count data. PsyArXiv, 1–39.

McGrath, H., and O'Toole, T. (2014). A cross-cultural comparison of the network capability development of entrepreneurial firms. Industrial Marketing Management, 43(6), 897–910. https://doi.org/10.1016/j.indmarman.2014.05.004
McMullen, J. S., and Shepherd, D. A. (2006). Entrepreneurial Action and the Role of Uncertainty in the Theory of the Entrepreneur. The Academy of Management Review, 31(1), 132–152.
Mitchell, R. K., Smith, J. B., Seawright, K. W., and Morse, E. A. (2000). Cross-Cultural Cognitions and the Venture Creation Decision. Academy of Management Journal, 43(5), 974–993.
Morris, M. H., Webb, J. W., Fu, J., and Singhal, S. (2013). A competency-based perspective on entrepreneurship education: Conceptual and empirical insights. Journal of Small Business Management, 51(3), 352–369. https://doi.org/10.1111/jsbm.12023
Mueller, S. L., and Thomas, A. S. (2001). Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness. Journal of Business Venturing, 16(1), 51–75. https://doi.org/10.1016/S0883-9026(99)00039-7
Nowiński, W., and Haddoud, M. Y. (2019). The role of inspiring role models in enhancing entrepreneurial intention. Journal of Business Research, 96(June 2018), 183–193. https://doi.org/10.1016/j.jbusres.2018.11.005
Oo, P. P., Sahaym, A., Juasrikul, S., and Lee, S. Y. (2018). The interplay of entrepreneurship education and national cultures in entrepreneurial activity: a social cognitive perspective. Journal of International Entrepreneurship, 16(3), 398–420. https://doi.org/10.1007/s10843-018-0229-4
Peterman, N. E., and Kennedy, J. (2003). Enterprise Education: Influencing Students' Perceptions of Entrepreneurship. Entrepreneurship Theory and Practice, 28(2), 129–144. https://doi.org/10.1046/j.1540-6520.2003.00035.x
Politis, D., Winborg, J., and Dahlstrand, Å. L. (2012). Exploring the resource logic of student entrepreneurs. International Small Business Journal, 30(6), 659–683. https://doi.org/10.1177/0266242610383445
Porter, M. E., Sachs, J. D., and McArthur, J. W. (2001). Executive summary: Competitiveness and stages of economic development. In The global competitiveness report.
Pruett, M., Shinnar, R., Toney, B., Carolina, N., Llopis, F., and Fox, J. (2009). Explaining entrepreneurial intentions of university students : a cross-cultural study. International Journal of Entrepreneurial Behaviour & Research, 571–594.
R Core Team. (2020). R: A language and environment for statistical computing. (https://www.R-project.org/). R Foundation for Statistical Computing, Vienna, Austria.
Reynolds, P., Bosma, N., Autio, E., Hunt, S., De Bono, N., Servais, I., Lopez-Garcia, P., and Chin, N. (2005). Global entrepreneurship monitor: Data collection design and implementation 1998-2003. Small Business Economics, 24(3), 205–231. https://doi.org/10.1007/s11187-005-1980-1
Rippa, P., Ferruzzi, G., Holienka, M., Capaldo, G., & Coduras, A. (2023). What drives university engineering students to become entrepreneurs? Finding different recipes using a configuration approach. Journal of Small Business Management, 61(2), 353-383.
Rodriguez-Pose, A., and di Cataldo, M. (2015). Quality of government and innovative performance in the regions of Europe. Journal of Economic Geography, 15(4), 673–706. https://doi.org/10.1093/jeg/lbu023
Ruozzi, A., and Vicente, J. A. (2021). Entrepreneurial framework conditions and impact scores of small-size certified benefit corporations (CBCs). A configurational analysis of 17 countries. Sustainability (Switzerland), 13(13). https://doi.org/10.3390/su13137297
Scherbaum, C. A., and Ferreter, J. M. (2009). Estimating statistical power and required sample sizes for organizational research using multilevel modeling. Organizational Research Methods, 12(2), 347–367. https://doi.org/10.1177/1094428107308906

Schmutzler, J., Andonova, V., and Diaz-Serrano, L. (2019). How Context Shapes Entrepreneurial Self-Efficacy as a Driver of Entrepreneurial Intentions: A Multilevel Approach. Entrepreneurship: Theory and Practice, 43(5), 880–920. https://doi.org/10.1177/1042258717753142
Schoeneberger, J. A. (2016). The Impact of Sample Size and Other Factors When Estimating Multilevel Logistic Models. Journal of Experimental Education, 84(2), 373–397. https://doi.org/10.1080/00220973.2015.1027805
Scott, W. R. (1995). Institutions and organizations. In Thousand Oaks. CA: Sage Publications.
Shane, S. (1993). Cultural influences on national rates of innovation. Journal of Business Venturing, 8(1), 59–73. https://doi.org/10.1016/0883-9026(93)90011-S
Shane, S. A. (1992). Why do some societies invent more than others? Journal of Business Venturing, 7(1), 29–46. https://doi.org/10.1016/0883-9026(92)90033-N
Shane, S., Locke, E. A., and Collins, C. J. (2003). Entrepreneurial motivation. Human Resource Management Review, 13(2), 257–279. https://doi.org/10.1016/S1053-4822(03)00017-2
Shane, S., and Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research. The Academy of Management Review, 25(1), 217–226.
Shepherd, D. A., Williams, T. A., and Patzelt, H. (2015). Thinking About Entrepreneurial Decision Making: Review and Research Agenda. Journal of Management, 41(1), 11–46. https://doi.org/10.1177/0149206314541153
Shinnar, R., Pruett, M., and Toney, B. (2009). Entrepreneurship Education : Attitudes Across Entrepreneurship Education : Attitudes Across Campus. Journal of Education for Business, 84(3), 151–159.
Shirokova, G., Morris, M. H., Laskovaia, A., and Micelotta, E. (2021). Effectuation and causation, firm performance, and the impact of institutions: A multi-country moderation analysis. Journal of Business Research, 129(March), 169–182. https://doi.org/10.1016/j.jbusres.2021.02.045
Shirokova, G., Tsukanova, T., and Morris, M. H. (2018). The Moderating Role of National Culture in the Relationship Between University Entrepreneurship Offerings and Student Start-Up Activity: An Embeddedness Perspective. Journal of Small Business Management, 56(1), 103–130. https://doi.org/10.1111/jsbm.12363
Sieger, P., Fueglistaller, U., and Zellweger, T. (2016). Student Entrepreneurship 2016: Insights From 50 Countries. In St.Gallen/Bern: KMU-HSG/IMU.
Sims, R. L., Gong, B., and Ruppel, C. P. (2012). A contingency theory of corruption: The effect of human development and national culture. Social Science Journal, 49(1), 90–97. https://doi.org/10.1016/j.soscij.2011.07.005
Singh, J. V, Tucker, D. J., and House, R. J. (1986). Organizational Legitimacy and the Liability of Newness. Administrative Science Quarterly, 31(2), 171–193.
Sommet, N., and Morselli, D. (2017). Keep calm and learn multilevel logistic modeling: A simplified three-step procedure using stata, R, Mplus, and SPSS. International Review of Social Psychology, 30(1), 203–218. https://doi.org/10.5334/irsp.90
Stenholm, P., Acs, Z. J., and Wuebker, R. (2013). Exploring country-level institutional arrangements on the rate and type of entrepreneurial activity. Journal of Business Venturing, 28(1), 176–193. https://doi.org/10.1016/j.jbusvent.2011.11.002
Stephan, U., and Pathak, S. (2016). Beyond cultural values ? Cultural leadership ideals and entrepreneurship. Journal of Business Venturing, 31(5), 505–523. https://doi.org/10.1016/j.jbusvent.2016.07.003
Stephan, U., and Uhlaner, L. M. (2010). Performance-based vs socially supportive culture: A cross-national study of descriptive norms and entrepreneurship. Journal of International Business Studies, 41(8), 1347–1364. https://doi.org/10.1057/jibs.2010.14

Strobl, A., Kronenberg, C., and Peters, M. (2012). Entrepreneurial attitudes and intentions: Assessing gender specific differences. International Journal of Entrepreneurship and Small Business, 15(4), 452–468.
Taras, V., Kirkman, B. L., and Steel, P. (2010). Examining the Impact of Culture's Consequences: A Three-Decade, Multilevel, Meta-Analytic Review of Hofstede's Cultural Value Dimensions. Journal of Applied Psychology, 95(3), 405–439. https://doi.org/10.1037/a0018938
Terjesen, S., Hessels, J., and Li, D. (2016). Comparative International Entrepreneurship: A Review and Research Agenda. In Journal of Management (Vol. 42, Issue 1). https://doi.org/10.1177/0149206313486259
Tian, M., Deng, P., Zhang, Y., and Salmador, M. P. (2018). How does culture influence innovation? A systematic literature review. Management Decision, 56(5), 1088–1107. https://doi.org/10.1108/MD-05-2017-0462
Tyler, T. R., Lind, E. A., and Huo, Y. J. (2000). Cultural Values and Authority Relations: The Psychology of Conflict Resolution Across Cultures. Psychology, Public Policy, and Law, 6(4), 1138–1163. https://doi.org/10.1037/1076-8971.6.4.1138
Ulhøi, J. P. (2005). The social dimensions of entrepreneurship. Technovation, 25(8), 939–946. https://doi.org/10.1016/j.technovation.2004.02.003
Urbano, D., and Alvarez, C. (2014). Institutional dimensions and entrepreneurial activity: An international study. Small Business Economics, 42(4), 703–716. https://doi.org/10.1007/s11187-013-9523-7
Urbano, D., Aparicio, S., and Querol, V. (2016). Social progress orientation and innovative entrepreneurship: an international analysis. Journal of Evolutionary Economics, 26(5), 1033–1066. https://doi.org/10.1007/s00191-016-0485-1
Van Auken, H., Fry, F. L., and Stephens, P. (2006). The influence of Role models on Entrepreneurial intentions. Journal of Developmental Entrepreneurship, 11(2), 157–167.
Van Stel, A. J., and Storey, D. J. (2004). The link between firm births and job creation: Is there a Upas Tree effect? Regional Studies, 38(8), 893–909. https://doi.org/10.1080/0034340042000280929
Vanderstraeten, J., van Witteloostuijn, A., and Matthyssens, P. (2020). Organizational sponsorship and service co-development: A contingency view on service co-development directiveness of business incubators. Technovation, 98(July 2018), 102154. https://doi.org/10.1016/j.technovation.2020.102154
Wales, W., Shirokova, G., Beliaeva, T., Micelotta, E., and Marino, L. (2021). The impact of institutions on the entrepreneurial orientation-performance relationship. Global Strategy Journal, 11(4), 656–685. https://doi.org/10.1002/gsj.1418
Welter, F., and Smallbone, D. (2011). Institutional Perspectives on Entrepreneurial Behaviour in Challenging Environments. Journal of Small Business Management, 49(1), 107–125. https://doi.org/10.1111/j.1540-627X.2010.00317.x
Wickham, H., and Chang, W. (2014). Package 'ggplot2'. Create elegant data visualisations using the grammar of graphics.
Winterich, K. P., and Zhang, Y. (2014). Accepting inequality deters responsibility: How power distance decreases charitable behaviour. Journal of Consumer Research, 41(2), 274–293. https://doi.org/10.1086/675927
Wong, P. K., Ho, Y. P., and Autio, E. (2005). Entrepreneurship, innovation and economic growth: Evidence from GEM data. Small Business Economics, 24(3), 335–350. https://doi.org/10.1007/s11187-005-2000-1
Yang, T., and Aldrich, H. E. (2017). "The liability of newness" revisited: Theoretical restatement and empirical testing in emergent organizations. Social Science Research, 63, 36–53. https://doi.org/10.1016/j.ssresearch.2016.09.006

Chapter 6: Conclusion

1. International entrepreneurship in the contemporary era

The advancement in communication and logistical technology allows for the increasing interconnectedness between countries. Easier than ever before can businesses and entrepreneurs connect, cooperate, and gather information from vast distances (Cavusgil and Knight, 2015). New forms of business such as digital or knowledge-based firms allow for overseas operations with extremely low costs (Cavusgil and Knight, 2015; Paul et al., 2019; Rialp et al., 2005). This new situation poses opportunities and challenges for the research domain of international entrepreneurship – both the topic of internationalization of entrepreneurial firms and the topic of cross-country comparative entrepreneurial studies (Terjesen et al., 2016; Zucchella, 2021).

For the research topic of international entrepreneurship, thanks to the innovative, reactive, and risk-taking nature of entrepreneurial firms (Brandstätter, 2011), they timely reflect the contemporary condition of the market. In this case, the advancement in technology and interconnectedness in the global market allows them to internationalize with relative ease, compared to the gradual internationalization model in the past century (Johanson and Vahlne, 1977; Paul et al., 2019; Vahlne and Johanson, 2020). As early internationalization and born-global are becoming more commonplace (Cavusgil and Knight, 2015; Coviello, 2015; Knight and Cavusgil, 2004), the literature on entrepreneurship internationalization needs to shift toward dealing with this new phenomenon in entrepreneurial internationalization.

The aforementioned technological advancements in the modern era call for a shift in comparative international entrepreneurship studies as well. Most studies that compare the impact of cultures on entrepreneurial activities are limited to treating countries as “big individuals”, with one set of values to represent the countries’ populations (Terjesen et al., 2016). This approach is popular due to the availability of secondary, country-level data – such as the Hofstede national culture dimensions (Hofstede, 2001) or the Global Entrepreneurship Monitor project (Bosma et al., 2021). However, the conventional country-

level approach risks creating results that are interpretable in cross-country comparisons, yet not applicable for within-country policymaking to stimulate entrepreneurial activities – which are inherently individual-level decisions (Shane and Venkataraman, 2000). The availability of global data and international research collaboration provides the opportunity to have fine-grained studies on national cultures and entrepreneurial activities, and scholars in this domain have called for this shift in comparative research approach (Kirkman et al., 2017; Terjesen et al., 2016).

The main contribution of our dissertation, therefore, is in this shift of international entrepreneurship research toward adapting to the modern era. First, the emerging early internationalization of entrepreneurial firms is tackled by focusing on the pre-foundation period, applying the concept of international entrepreneurial intention. Second, we respond to the recommendation to conduct fine-grain cross-country comparisons of entrepreneurial activities by using the individual-level perception of national culture.

In the next sections of this chapter, we will summarize the most noteworthy results from the essays, as well as their connections with contemporary literature. Based on our research, we would also propose avenues for future research in the domain of international entrepreneurship.

2. Internationalization of firm – expanding the literature of international entrepreneurial intention.

2.1. Contribution to the research topic of IEI

As entrepreneurial firms can internationalize almost instantly after the business foundation (Cavusgil and Knight, 2015; Coviello, 2015), we turn our attention toward the new research stream on the pre-foundation periods of entrepreneurial firms, and find the drivers of early internationalization (e.g., Ammeer et al., 2022; Jannesari, 2022; Jie and Harms, 2017; Ruzzier et al., 2020). Our target of examination is the concept of international entrepreneurial intention (IEI). Intention is a concept from psychology and has been applied successfully in entrepreneurship studies (Liñán and Fayolle, 2015). Entrepreneurial intention represents the self-acknowledged willingness and planning to set up an entrepreneurial firm (Ajzen, 1991; Thompson, 2009). Similarly, we use the concept of international

entrepreneurial intention (IEI) to represent the self-acknowledged willingness to internationalize an entrepreneurial firm in the future. The most crucial implication of this concept is that the respondent has not founded the firm, and therefore the concept matches our focus on the pre-foundation period.

In the first essay, to explain the formation of IEI, we study the personal characteristics that led to the intention to internationalize future businesses. The importance of the first essay in posit to the current literature is twofold. First, it supports the importance of personal characteristics in studying entrepreneurial internationalization – as suggested by (Coviello, 2015). In particular, we applied the personal value model by (Schwartz, 2003), and found out that individuals with the values of self-enhancement – which involves the tendency toward success, competence, power, prestige, and enjoyment (Schwartz, 2003) – have a positive relationship with IEI. This shows the potential of using personal values in entrepreneurial intention studies, a line of research that is so far still limited (Hueso, Jaén, and Liñán, 2020).

Second, while inherently an individual-level decision, entrepreneurship, and entrepreneurial internationalization are from the amalgamation of the entrepreneurs' personal characters and their surrounding contextual factors (McMullen and Shepherd, 2006; Shane and Venkataraman, 2000). To have a holistic understanding of IEI, therefore, we explore the impact of contextual factors, as well as their interactions with our aforementioned personal values. Unsurprisingly, exposure to entrepreneurial education, international knowledge, and international experience has a positive relationship with IEI. These results are in line with what has been discussed in existing literature, and we, therefore, echo the suggestion by prior studies to invest in the quantity and quality of entrepreneurial- and international-themed education (Pittaway and Cope, 2007; Ruzzier et al., 2020). The more interesting result comes from the interaction between the contextual factor and personal aspects. In particular, the values of conservation – which involve following and respecting the norms and tradition – are argued to have a negative relationship with IEI. However, if individuals with conservation values have entrepreneurial role models (such as parents working as entrepreneurs), the negative effect is mitigated. This finding is especially important considering how personal values can stay inert and hard to be shifted under deliberate efforts (Bardi et al., 2009; Vecchione et al., 2016). With appropriate exposure to entrepreneurial

role models, stakeholders can turn a theoretically incompatible group (in this case, individuals with conservation values) toward entrepreneurial internationalization.

In the second essay, we further extend the knowledge of antecedents of IEI. We build upon the positive impact of international experience (Cheung et al., 2022; Shannon and Begley, 2008; Tarique and Takeuchi, 2008; Wood et al., 2014), as well as international knowledge (Buchtel, 2014; Bücker and Korzilius, 2015; Eisenberg et al., 2013; Kamal Abdien and Jacob, 2019; Macnab, 2012), on internationalization of businesses. Unsurprisingly, a higher level of international experience – represented by time spent abroad, as well as a higher level of international knowledge – operationalized by international-themed activities participated in the home country, leads to higher IEI.

The more interesting contribution of the second essay is our suggestion of a theoretical framework for IEI. As a branch of intention studies, the majority of papers covering IEI involve the Theory of Planned Behaviour (TPB) (Ajzen, 1991) as their framework. TPB is a dominating theory in (generic) entrepreneurial intention (Liñán and Fayolle, 2015); however, we argue that it is better to have a theory that can tackle some specific aspects of IEI, such as the international aspect of this concept. We propose an alternative framework: motivational cultural intelligence (MCQ). This theory is a combination of cultural intelligence theory (Ang and Van Dyne, 2008) – a theory that appeared in studies on internationalization and entrepreneurship (Liñán and Fayolle, 2015), and theory of motivation (Eccles and Wigfield, 2002) – which is another psychological concept closely relates to intention (Bird, 1988). We briefly tested our proposal by putting MCQ in the mediating role between international knowledge/experience and IEI. The full mediation result supports our theoretical proposal, and poses an interesting potential alternative to TPB for future IEI studies.

2.2. Differentiating IEI from generic entrepreneurial intention (EI)

Another important objective of the first and second essay is bolstering the distinctions between IEI and generic entrepreneurial intention (EI). We acknowledge the causal relationship between EI and IEI–that is, the intention to internationalize a future business (IEI) is necessarily preceded by the intention to found a business (EI). This causal relationship leads to difficulties in developing studies on IEI. Theoretically, it is difficult to

clearly portray what is examined with the variable of IEI, whilst this variable implies involving EI as an antecedent. Empirically, in models examining the relationship between antecedents and IEI, how much of the relationship belongs to EI and how much belongs to the internationalization aspect are muddled. In other words, the contributions of papers on IEI are not clearly distinguished from the well-established literature of EI. Consequently, the necessity to study IEI as a separate topic from EI can be questioned for its necessity.

In the first and second essays of this dissertation, since IEI is the main focus, we attempted to address these difficulties. In particular, we account for the variance of EI when studying IEI. By doing that, our models focus on the internationalization aspect of IEI rather than the EI aspect.

The first essay uses EI as a control variable in the models that analyse the impact of personal values on IEI. This measure addresses the aforementioned difficulties, because by adding EI as a control variable, the remaining variables of the model can explore the variance of IEI that is not explained by EI. In other words, the EI aspect of IEI is covered by the control variable, leaving only the internationalization aspect of IEI to be predicted by the independent variables (in this case, personal values, entrepreneurial knowledge and role models).

In the second essay, we uses a stricter constrain of EI, and only include students who are both identified as non-entrepreneurs (not running a business and not in a process of creating one), and have intention to create an entrepreneurial firm (EI). This homogenous sample addresses the aforementioned difficulties of IEI studies, as it allows us to observe the variance and antecedents of IEI among individuals with similar EI. In other words, by keeping EI the same across individuals, we can make sure that the impacts of independent variables (in this case, international experience, international knowledge and motivational cultural intelligence) on IEI only concerns the internationalization aspect.

The results from our two essays come to the same conclusion that even when we control for the variance of EI, there is still a significant variation of IEI. This variation – which represents the internationalization aspect of IEI – is a strong empirical evidence to distinguish IEI from EI. All in all, although EI and IEI has lots of similarities and overlaps, and although EI is arguably a necessary antecedent of IEI, our dissertation justifies studying

IEI as an independent topic – rather than completely exists as a specific case of EI and can be explained completely by the EI literature.

3. Comparative international entrepreneurship – fine-grained impact of national culture on entrepreneurship

Comparative international entrepreneurship studies play the role of exploring how entrepreneurship is formulated differently between countries (Terjesen et al., 2016). National culture is a very prominent aspect in cross-country comparison (Hofstede, 2001; House et al., 2004), and an abundance of studies have been conducted to connect national cultures and total entrepreneurial activities of a country (Hayton et al., 2002; Lee & Peterson, 2000; Mitchell et al., 2000; Shane, 1993; Shane, 1992; Stephan & Uhlaner, 2010; Tian et al., 2018)

Among aspects of national culture, power distance has quite a strong consensus in terms of its connection with entrepreneurial activities. It is commonly agreed that the higher the level of power distance in a country, the lower the number of entrepreneurial activities (Hayton et al., 2002; Lee and Peterson, 2000; Mitchell et al., 2000; SShane, 1993; S. A. Shane, 1992; Stephan and Uhlaner, 2010; Tian et al., 2018). However, in tandem with the aforementioned call for more fine-grained studies in comparative international entrepreneurship studies (Kirkman et al., 2017; Terjesen et al., 2016), we propose further exploring how power distance affects entrepreneurial activities within a country. We do this by using the individual-level variable of perceived power distance.

Our results reveal interesting variations in the relationship between power distance and entrepreneurial activities. In particular, individual-level perceived power distance has a positive relationship with entrepreneurial activities in some countries, yet negative in others (please refer to Figure 5.1 for further details). This within-country variation is what scholars suggest to be neglected when only country-level values are examined (Kirkman et al., 2006, 2017; Terjesen et al., 2016), and brings forward new research questions regarding the relationship between culture (in this case, power distance) and entrepreneurial behaviours.

While painting a picture that conflicts with the existing literature of comparative international entrepreneurship studies, our results do not challenge the existing results on power distance and entrepreneurial activities. That is because our approach is from

individual-level comparison, which stands as a complement to the common country-level approach. The conventional approach of using country-level data to represent national culture has undoubtedly contributed to the comparative entrepreneurial studies, painting a broad stroke over the country-level cultural aspects and country-level aggregated entrepreneurial activities. Country-level analysis, however, is theoretically insufficient in designing measures and policies to stimulate individual-level behaviours such as entrepreneurship (McMullen and Shepherd, 2006; Shane and Venkataraman, 2000; Terjesen et al., 2016), and empirically unable to include all variations of culture within countries – as our results pointed out. We, therefore, want to emphasize the importance of looking at national culture from a below-country level.

Recognizing the importance of within-country variance and individual-level analyses, the next step is to find out what makes the relationship between power distance and entrepreneurial activities positive (or negative). In our essay, we do this by adding the country-level institutional framework as moderators. We follow the framework of three institutional pillars (Scott, 1995), which was operationalized in the domain of entrepreneurship by (Kostova, 1997) and (Busenitz et al., 2000). Our results show that perceived power distance has a more positive effect in countries with higher entrepreneur-minded normative institutions, yet a less positive effect within higher entrepreneur-minded cognitive institutions. These results further support the necessity of examining the impact of culture within different context (Kirkman et al., 2017), and represents the complicated interactions of cultures and institutions that comparative international studies need to address.

Figure 6.1: The Dissertation's contribution to entrepreneurial internationalization literature

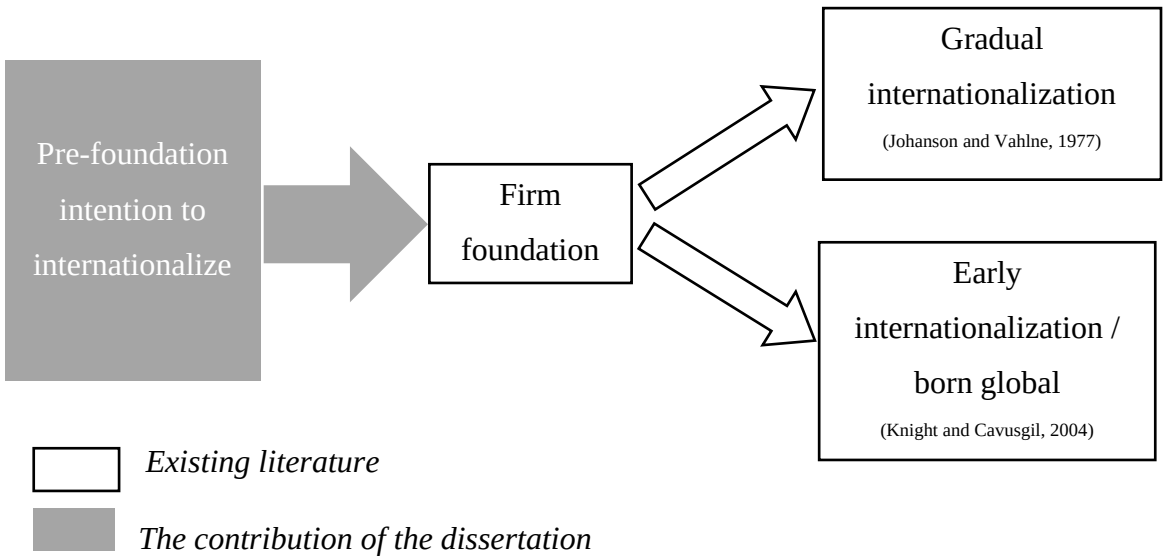
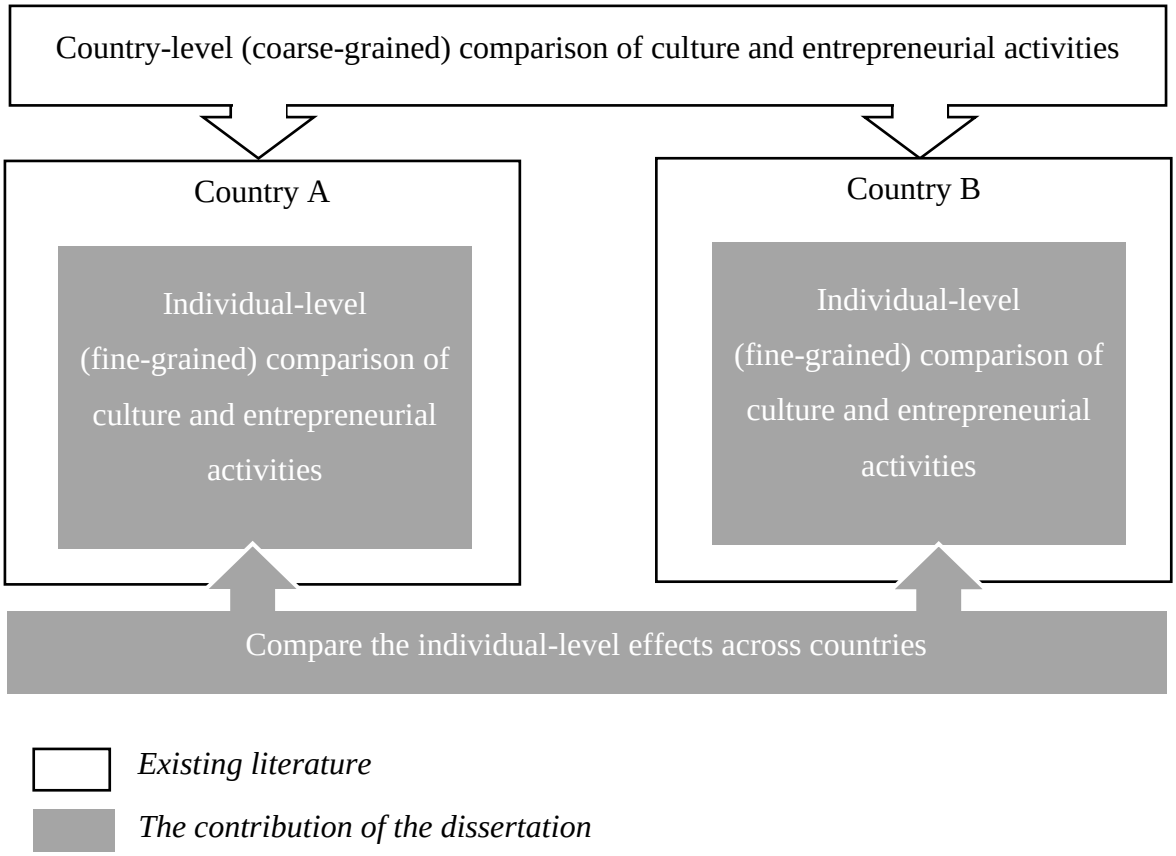


Figure 6.2: The Dissertation's contribution to comparative international entrepreneurship



4. Practical implications of our results

Not only contributing to the literature on international entrepreneurship, but our essays also provide practical suggestions for stakeholders such as educational institutions, organizations who wish to stimulate entrepreneurship and internationalization, and policymakers who wish to increase the national total entrepreneurial activities.

For organizations who wish to stimulate entrepreneurial activities and international orientation, such as entrepreneurial universities or incubators, it is advisable to develop entrepreneurial education (Lüthje and Franke, 2003; Pittaway and Cope, 2007), both in terms of general entrepreneurial knowledge and international-themed education. Methods of education should also not be limited to lectures, but also entrepreneurial mentorship or collaboration with small firms (Pittaway and Cope, 2007), and exposure to the international environment via extracurricular activities or exchange programs that involve living in a foreign country (Shannon and Begley, 2008; Tarique and Takeuchi, 2008; Wood et al., 2014). Each activity can provide a different aspect of entrepreneurship and international knowledge.

It is also beneficial for organizations to explore the personal values of the participants of the program (Schwartz, 2003). That is because individuals with certain personal values (such as self-enhancement values) are fonder of entrepreneurial internationalization. Knowing the personal values of participants will play a role in designing personally adaptive programs that, for example, accelerate individuals with desirable personal values, or provide extra inspiration for individuals with less entrepreneurship- and international-oriented values.

We would not, however, support attempts to reshape students' personal values. This is because personal values can be rigid, and therefore deliberately adjusting them is a large investment of resources. Compared to reshaping personal values, creating environments that stimulate the international entrepreneurial intention of individuals with less "desirable" personal values is a more effective manner. One way of doing this is by exposing students to successful entrepreneurs via e.g., guest lectures, media, or seminars (Van Auken et al., 2006). Our study has shown that exposure to entrepreneurial role models does not only provide overall knowledge and inspiration (Bosma et al., 2012; Laviolette et al., 2012; Zozimo et al., 2017) but also normalizes entrepreneurship and internationalization. This

normalization, in turn, improves the attitude toward international entrepreneurship of individuals who value the norm and security over innovativeness and risk.

Based on our essay comparing entrepreneurial activities between countries, we have several practical suggestions for governments and policymakers. While the theoretical positioning of our essay on individual-level perceived power distance is complementary to the body of research that uses country-level culture to explain entrepreneurship, we would strongly suggest revisiting the practical implications that stem from country-level studies of culture.

Country-level studies imply that countries can understand the relationship between country-level culture and country-level entrepreneurial activities. However, this approach implies many risks and inaccuracies. For example, using country-level analysis for individual-level decisions such as entrepreneurial behaviours might commit ecological fallacy. In particular, the relationship between culture and entrepreneurial behaviours can differ between country-level and individual-level analyses. Country-level analysis cannot record such variation. For example, if the majority of the population holds a slightly positive connection between a particular culture and entrepreneurship, and a minority holds a significant negative connection, the national average might skew to a negative overall connection regardless. Our third essay serves as an example of this speculation, as the results point out that the consensus that power distance has a negative impact on entrepreneurship might hold true on country-level analysis, but not necessarily on an individual-level model.

We strongly recommend acknowledging the within-country variation of national culture. Culture, while reflecting the collective behaviour of the nation (Hofstede, 2001), is not the same across the national population. In fact, individuals within the country can have different beliefs and behaviours, or perceive the national culture differently depending on their personal conditions and surroundings (Taras et al., 2010; Terjesen et al., 2016). Culture-based policies to stimulate entrepreneurship can only work when governments and policymakers grasp how culture varies within the country. For example, as the results of our third essay pointed out, the effort to increase entrepreneurial competence within a population can have a negative interaction with the culture of power distance, leading to a lower entrepreneurial outcome if the perceived power distance is high.

Similar to personal values and beliefs, national cultures act as the country's distinct identity and are very inert, taking generations to transform (Hofstede, 2001; House et al., 2004). Therefore, after understanding the within-country variation of culture, the role of governments and policymakers is not to change the national culture toward a "desirable" frame. Instead, they can count on more "actionable" measures, such as issuing rules and regulations that favour entrepreneurship (Busenitz et al., 2000), or increasing the population's entrepreneurial knowledge via education (Pittaway and Cope, 2007). Fortunately, the accessibility of comparative international entrepreneurship studies – such as reports and databases such as the GEM project (Bosma et al., 2021) – allows governments and policymakers to learn from the successful formulas of other countries.

5. Limitations of our studies and avenues for future research

5.1. Limitations of the dissertation

Similar to all scientific studies, our dissertation has several limitations. Our studies are built upon student datasets. The first major limitation of our studies is that our arguments and analyses are built upon student datasets. While we argued that student entrepreneurship is a highly relevant topic in entrepreneurship studies and the effort to stimulate (international) entrepreneurship in general (Marsh and Hau, 2003; Morris et al., 2017; Peterman and Kennedy, 2003; Politis et al., 2012; Pruett et al., 2009; Robins et al., 2005; Shinnar et al., 2009; Vanderstraeten et al., 2021), we recognize that the student dataset does not represent the universal population (Bello et al., 2009). For example, results based on student datasets can be biased toward lower entrepreneurship activities because they have relatively limited resources (Morris et al., 2017). At the same time, they can be biased toward higher internationalization because younger entrepreneurs are more aware of the contemporary global situations and opportunities, as well as more capable of utilizing modern technology to expand their network and potential market. We could not elaborate on these potential biases in our models and analyses, and our findings and recommendations should be viewed while bearing the student context in mind.

Regarding our studies on entrepreneurial internationalization topic, our measure of international entrepreneurial intention is still coarse-grained. For example, we did not

include the categorization of whether the participants intend to internationalize immediately when the firm is founded, or when the firm is fully matured and has redundant resources to internationalize. As early internationalization and born-global require different qualities of the entrepreneurs compared to gradual internationalization (Knight and Cavusgil, 2004), the intention to internationalize early can have different driving factors compared to the intention to gradually internationalize. For example, to have the intention to internationalize early, entrepreneurs ought to be aware of and prepare for difficulties in entering a foreign market while the firm's operation and revenues are not stabilized yet (Jiang et al., 2020). The intention to internationalize early, however, could be bolstered if the product of the entrepreneurial firms is innovative, knowledge-intensive, and likely to thrive in an international market (Knight and Cavusgil, 2004). These nuances within the intention to internationalize could not be covered in our dissertation.

Our contribution to comparative international entrepreneurship studies is limited to reporting the varied effect of national culture on entrepreneurial activities (in our case, the aspect of power distance) at the individual level, without delving into why the individual-level variance occurs. In other words, our contribution regarding the impact of individual-level culture on entrepreneurship is only one-half of the picture. To paint a holistic picture of culture and entrepreneurship, we need to understand why people have different perceptions of the national culture rather than conforming to the national average. We suspect that, while culture is a collective "coding" of a population (Hofstede, 2001), the individuals' unique nature and nurture play a large role in the person's compliance with (or divergence from) the national average. However, these relationships are beyond the scope of our studies.

Another limitation related to culture is that, within the contemporary literature, there are two major interpretations of national culture. They are cultural values (Hofstede, 2001) and cultural practices (House et al., 2004). While the former concerns the question of "how things should be", the latter is designed to answer the question of "how things currently are" (Autio et al., 2013; Daniels and Greguras, 2014; Hofstede, 2001; House et al., 2004). While the two approaches have major similarities and overlaps, prior studies have pointed out differences between these two approaches (House et al., 2004). These differences could not be included in the scope of our dissertation.

Within our multilevel analyses, we could only include two levels of analysis, namely the individual level and the country level. While we could use these two levels of analysis to present the oftentimes overlooked individual-level variation of culture (Kirkman et al., 2017; Terjesen et al., 2016), there are other levels of analysis via which we can unveil more variation of culture, institutions, and entrepreneurship (Taras et al., 2010). For example, grouping respondents by the university is highly relevant to our student dataset, as the university environment plays a large role in forming students' entrepreneurial behaviour (Pittaway and Cope, 2007). We would recommend future studies to utilize other levels of analysis such as university, city, or region.

Finally, this dissertation is built upon the assumption that entrepreneurship and entrepreneurial internationalization are beneficial, and therefore should be promoted. However, studies in recent years are revisiting this premise, and raising questions regarding the "dark side" of entrepreneurship–implying the negative aspects of entrepreneurs and entrepreneurial activities. For example, entrepreneurship can be motivated by greed and ego, which implies benefit to the individuals rather than stimulating socioeconomic development (Haynes et al., 2015). Entrepreneurs can also be fuelled by hubris and overconfidence, leading to incorrect perceptions of risks, a higher chance of business failure, and consequently a waste of resources (Zeitoun et al., 2019). Insufficient knowledge of entrepreneurs can also lead to ineffective or harmful outcomes, even when they intend to improve society (e.g., Koehne et al., 2022). The "dark side" of entrepreneurship is also reflected in how running a business can increase stress and have a negative impact on personal well-being (Kibler et al., 2019). These complications could not be covered in our dissertation.

5.2. Avenues for future research

The research domain of international entrepreneurship has undergone great developments since the beginning of the century when it was formally addressed (Baker et al., 2005; Kirkman et al., 2017; Oviatt and McDougall, 2000; Zucchella, 2021). Via our dissertation, we wish to draw more attention to the future development of the research domain, focusing specifically on topics that are so far generally overlooked, yet are highly relevant to the current situation of international business and entrepreneurship. In particular, for

internationalization studies, we suggest avenues to accelerate the expansion of the IEI literature. For comparative studies, we propose re-opening the existing consensus that has been crafted using country-level comparisons and having a closer look using fine-grained data and multilevel analysis models (Terjesen et al., 2016).

Studies on the internationalization of firms have fairly matured in the past few decades, applying many theoretical frameworks and reaching rather conclusive results (Zucchella, 2021). However, papers on this topic mainly focus on firm-level qualities or entrepreneurs' qualities that are related to firm operations (Zucchella, 2021), or examine successfully internationalized firms (Jiang et al., 2020). We heed the call for more attention toward the pre-foundation period of entrepreneurial internationalization (Zucchella, 2021), and our main target is exploring the antecedents of intention to internationalize.

Conventionally, papers studying the cognitive antecedents of internationalization represent entrepreneurs' characteristics via qualities such as risk-taking, entrepreneurial orientation, etc. (e.g., Ruzzier et al., 2020; Shirokova et al., 2016). Our successful application of the basic personal value model (Schwartz, 2003) suggests examining more fundamental elements, such as personality traits, values or beliefs, or values in predicting intention to internationalize in the future.

Another venue for future research is the connection between the intention to internationalize and the actual internationalization of entrepreneurial firms. The intention, while recognized as a strong predictor of behaviour (Krueger et al., 2000) does not necessarily lead to actual behaviour (Thompson, 2009). There have been several studies on the connection between entrepreneurial intention and entrepreneurial activities, exploring the contextual conditions in which intentions are more likely to be turned into behaviour (Bogatyreva et al., 2019; Shirokova et al., 2016). The realization of IEI is arguably more complicated than generic entrepreneurial intention, as it involves two steps: the step from IEI to creating the entrepreneurial business and then the step from founding the business to internationalization – each with its their own complication and deserves standalone studies.

From the contextual viewpoint to the best of our knowledge, the papers on IEI severely lack the element of the surrounding environment. While understanding the personality and cognitive antecedents of IEI is important, international entrepreneurship – similar to

entrepreneurship in general – is affected by both individual aspects and contextual factors (Shane and Venkataraman, 2000). Sharing the same root in the concept of intention, IEI literature can adopt ideas from the well-documented domain of (generic) entrepreneurial intention literature, which has involved many categories of contextual factors such as entrepreneurial education, social capital culture and institution, and drawn a relatively complete picture of entrepreneurial intention (Liñán and Fayolle, 2015). Future papers on IEI can find concepts parallel to those of (generic) entrepreneurial intention to hasten the development of the IEI literature.

Finally, pre-foundation studies in entrepreneurial internationalization in general, and IEI in particular, lack a distinctive theoretical ground. While we were successful in applying motivational cultural intelligence as a theoretical framework, we believe that future studies can experiment with other relevant theoretical models. Models such as the full spectrum of cultural intelligence (Ang and Van Dyne, 2008), global mindset (Gupta and Govindarajan, 2002; Jie and Harms, 2017) or social learning theory for international-related topics (Bandura, 1977; Jannesari, 2022) have been attempted in IEI literature, yet due to the limited number of papers on this topic, a concrete theoretical framework has not been achieved. While it is enticing to apply the Theory of Planned Behaviour to every intention-related concept, developing a distinctive theoretical framework would be helpful for the long-term development of IEI as an independent research topic.

The comparative international entrepreneurship is recognized to be in a much more nascent stage compared to entrepreneurial internationalization studies (Terjesen et al., 2016). One major reason for this stagnation is the challenges of collecting large amounts of fine-grained (preferably individual level), international data. However, this is becoming less of a challenge, thanks to the availability of international collaboration and international projects such as GUESSS or GEM (Bosma et al., 2021; Sieger et al., 2021). We suggest future researchers in this domain utilize these opportunities to get access to fine-grain primary international data, which is a prerequisite for fine-grain international comparison.

We encourage revisiting the conventional knowledge of culture and entrepreneurial behaviour that was formulated by country-level comparison. While national culture is a collective concept that is mainly used to aggregately represent countries and communities,

there are several nuances surrounding this concept. For example, variation in national culture within a country can create a "frog pond" effect, in which individuals within the same community would compare themselves with each other, rather than with outsiders (Hox, 2010). Meanwhile, the majority of consensus on the relationship between culture and entrepreneurial activities comes from analyses confined to the country level (Kirkman et al., 2017). Recognizing this shortcoming in contemporary comparative international entrepreneurship studies, and reinforced by the results we got from studying power distance on the individual level, we strongly suggest future studies to re-open the consensus with fine-grain methodologies and create a more holistic picture of culture and entrepreneurial activities on many levels of analysis (individual – firm – region – country, etc.).

To do this, we highly recommend utilizing multilevel analysis (Field et al., 2012; Hox, 2010; Sommet and Morselli, 2017). Multilevel analysis is a powerful tool, which allows researchers to simultaneously fit models with variables of many levels of analysis (namely individual and country levels) while keeping all variables at their original level of meaning. Researchers, thus, can measure the impact of individual-level factors and country-level elements at the same time without committing (reverse) ecological fallacy – which would be inevitable if variables of various levels were tested in a single-level regression model. We reckon multilevel analysis will be the method of choice in comparative international entrepreneurship studies, and the widespread mastery of this method will greatly aid the maturity of this research domain in the upcoming years.

References

Ajzen, I. (1991). The Theory of Planned Behaviour. Organizational Behaviour and Human Decision Processes, 50(2), 179–221.

Ammeer, M. A., Haddoud, M. Y., and Onjewu, A. K. E. (2022). A personal values view of international entrepreneurial intention. International Journal of Entrepreneurial Behaviour and Research, 28(3), 577–601. https://doi.org/10.1108/IJEBR-06-2021-0480

Ang, S., and Van Dyne, L. (2008). Handbook of cultural intelligence: theory, measurement, and applications. In Choice Reviews Online.

Autio, E., Pathak, S., and Wennberg, K. (2013). Consequences of cultural practices for entrepreneurial behaviours. Journal of International Business Studies, 44(4), 334–362. https://doi.org/10.1057/jibs.2013.15

Baker, T., Gedajlovic, E., and Lubatkin, M. (2005). A framework for comparing entrepreneurship processes across nations. Journal of International Business Studies, 36(5), 492–504. https://doi.org/10.1057/palgrave.jibs.8400153

Bandura, A. (1977). Social learning theory. In Prentice Hall: Englewood cliffs.

Bello, D., Leung, K., Radebaugh, L., Tung, R. L., and Van Witteloostuijn, A. (2009). From the Editors : Student samples in international business research. Journal of International Business Studies, 40, 361–364. https://doi.org/10.1057/jibs.2008.101

Bird, B. (1988). Implementing Entrepreneurial Ideas: The Case for Intention. Academy of Management Review, 13(3), 442–453. https://doi.org/10.5465/amr.1988.4306970

Bogatyreva, K., Edelman, L. F., Manolova, T. S., Osiyevskyy, O., and Shirokova, G. (2019). When do entrepreneurial intentions lead to actions? The role of national culture. Journal of Business Research, 96(May 2018), 309–321. https://doi.org/10.1016/j.jbusres.2018.11.034

Bosma, N., Hessels, J., Schutjens, V., Praag, M. Van, and Verheul, I. (2012). Entrepreneurship and role models. Journal of Economic Psychology, 33(2), 410–424. https://doi.org/10.1016/j.joep.2011.03.004

Bosma, N., Hill, S., Ionescu-Somers, A., Kelley, D., Guerrero, M., and Schott, T. (2021). GEM 2020/2021 Global Report.

Brandstätter, H. (2011). Personality aspects of entrepreneurship: A look at five meta-analyses. Personality and Individual Differences, 51(3), 222–230. https://doi.org/10.1016/j.paid.2010.07.007

Busenitz, L. W., Gomez, C., and Spencer, J. W. (2000). Country Institutional Profiles : Unlocking Entrepreneurial Phenomena. Academy of Management Journal, 43(5), 994–1003.

Cavusgil, S. T., and Knight, G. (2015). The born global firm: An entrepreneurial and capabilities perspective on early and rapid internationalization. Journal of International Business Studies, 46(1), 3–16. https://doi.org/10.1057/jibs.2014.62

Coviello, N. (2015). Re-thinking research on born globals. Journal of International Business Studies, 46(1), 17–26. https://doi.org/10.1057/jibs.2014.59

Daniels, M. A., and Greguras, G. J. (2014). Exploring the Nature of Power Distance: Implications for Micro- and Macro-Level Theories, Processes, and Outcomes. Journal of Management, 40(5), 1202–1229. https://doi.org/10.1177/0149206314527131

Eccles, J., and Wigfield, A. (2002). MOTIVATIONAL BELIEFS,VALUES, AND GOALS. Annual Review of Psychology, 53(1), 109–132.

Field, A., Miles, J., and Field, Z. (2012). Discovering statistics using R. In Sage publications. https://doi.org/10.5860/choice.50-2114

Gupta, A. K., and Govindarajan, V. (2002). Cultivating a global mindset. Academy of Management Perspectives, 16(I), 116–126.

Haynes, K. T., Hitt, M. A., and Campbell, J. T. (2015). The dark side of leadership: Towards a mid-range theory of hubris and greed in entrepreneurial contexts. Journal of Management Studies, 52(4), 479–505. https://doi.org/10.1111/joms.12127
Hayton, J. C., George, G., and Zahra, S. A. (2002). Entrepreneurship: National Culture and A Review of Behavioural Research. Entrepreneurship Theory and Practice, 26(4), 33–52.
Hofstede, G. (2001). Comparing Values, Behaviours, Institutions and Organizations Across Nations (2nd ed.). Sage Publications, Thousand Oaks, California.
House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., and Gupta, V. (2004). Culture, leadership, and organizations: The GLOBE study of 62 societies. In Handbook of Intercultural Training. Sage publications.
Hox, J. J. (2010). Multilevel Analysis Techniques and Applications. Routledge.
Hueso, J. A., Jaén, I., and Liñán, F. (2020). From personal values to entrepreneurial intention: a systematic literature review. International Journal of Entrepreneurial Behaviour & Research, 205–230.
Jannesari, M. T. (2022). Predictors of International Entrepreneurial Intention Among Young Adults: Social Cognitive Theory. Frontiers in Psychology, 13(June). https://doi.org/10.3389/fpsyg.2022.894717
Jiang, G., Kotabe, M., Zhang, F., Hao, A. W., Paul, J., and Wang, C. L. (2020). The determinants and performance of early internationalizing firms: A literature review and research agenda. International Business Review, 29(4), 101662. https://doi.org/10.1016/j.ibusrev.2019.101662
Jie, S., and Harms, R. (2017). Cross-Cultural Competences and International Entrepreneurial Intention : A Study on Entrepreneurship Education. Education Research International.
Johanson, J., and Vahlne, J.-E. (1977). The internationalization process of the firm—a model of knowledge development and increasing foreign market commitments. Journal of International Business Studies, 8(1), 23–32.
Kirkman, B. L., Lowe, K. B., and Gibson, C. B. (2006). A quarter century of culture's consequences: A review of empirical research incorporating Hofstede's cultural values framework. Journal of International Business Studies, 37(3), 285–320. https://doi.org/10.1057/palgrave.jibs.8400202
Kirkman, B. L., Lowe, K. B., and Gibson, C. B. (2017). A retrospective on Culture's Consequences: The 35-year journey. Journal of International Business Studies, 48(1), 12–29. https://doi.org/10.1057/s41267-016-0037-9
Knight, G. A., and Cavusgil, S. T. (2004). Innovation, organizational capabilities, and the born-global firm. Journal of International Business Studies, 35(2), 124–141. https://doi.org/10.1057/palgrave.jibs.8400071
Koehne, F., Woodward, R., and Honig, B. (2022). The potentials and perils of prosocial power: Transnational social entrepreneurship dynamics in vulnerable places. Journal of Business Venturing, 37(4), 106206. https://doi.org/10.1016/j.jbusvent.2022.106206
Kostova, T. (1997). Country Institutional Profiles: Concept and Measurement. Academy of Management Proceedings, 1997(1), 180–184. https://doi.org/10.5465/ambpp.1997.4981338
Krueger, N. F., Reilly, M. D., and Carsrud, A. L. (2000). Competing Models of Entrepreneurial Intentions. Journal of Business Venturing, 15, 411–432.
Laviolette, E. M., Lefebvre, M. R., and Brunel, O. (2012). The impact of story bound entrepreneurial role models on self-efficacy and entrepreneurial intention. International Journal of Entrepreneurial Behaviour and Research, 18(6), 720–742. https://doi.org/10.1108/13552551211268148
Lee, S. M., and Peterson, S. J. (2000). Culture, entrepreneurial orientation, and global competitiveness. Journal of World Business, 35(4), 401–416. https://doi.org/10.1016/S1090-9516(00)00045-6

Liñán, F., and Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions: citation, thematic analyses, and research agenda. International Entrepreneurship and Management Journal, 11(4), 907–933. https://doi.org/10.1007/s11365-015-0356-5
Lüthje, C., and Franke, N. (2003). The "making" of an entrepreneur: Testing a model of entrepreneurial intent among engineering students at MIT. R and D Management, 33(2), 135–147. https://doi.org/10.1111/1467-9310.00288
Marsh, H. W., and Hau, K. T. (2003). Big-Fish-Little-Pond Effect on Academic Self-concept: A Cross-Cultural (26-Country) Test of the Negative Effects of Academically Selective Schools. American Psychologist, 58(5), 364–376. https://doi.org/10.1037/0003-066X.58.5.364
McMullen, J. S., and Shepherd, D. A. (2006). Entrepreneurial Action and the Role of Uncertainty in the Theory of the Entrepreneur. The Academy of Management Review, 31(1), 132–152.
Mitchell, R. K., Smith, J. B., Seawright, K. W., and Morse, E. A. (2000). Cross-Cultural Cognitions and the Venture Creation Decision. Academy of Management Journal, 43(5), 974–993.
Morris, M. H., Shirokova, G., and Tsukanova, T. (2017). Student entrepreneurship and the university ecosystem: A multi-country empirical exploration. European Journal of International Management, 11(1), 65–85. https://doi.org/10.1504/EJIM.2017.081251
Oviatt, B. M., and McDougall, P. P. (2000). International Entrepreneurship : The Intersection of Two Research Paths. The Academy of Management Journal, 43(5), 902–906.
Paul, J., Rosado-serrano, A., and Rosado-serrano, A. (2019). Gradual Internationalization vs Born-Global / International new venture models A review and research agenda. International Marketing Review. https://doi.org/10.1108/IMR-10-2018-0280
Peterman, N. E., and Kennedy, J. (2003). Enterprise Education: Influencing Students' Perceptions of Entrepreneurship. Entrepreneurship Theory and Practice, 28(2), 129–144. https://doi.org/10.1046/j.1540-6520.2003.00035.x
Pittaway, L., and Cope, J. (2007). Entrepreneurship education: A systematic review of the evidence. International Small Business Journal, 25(5), 479–510. https://doi.org/10.1177/0266242607080656
Politis, D., Winborg, J., and Dahlstrand, Å. L. (2012). Exploring the resource logic of student entrepreneurs. International Small Business Journal, 30(6), 659–683. https://doi.org/10.1177/0266242610383445
Pruett, M., Shinnar, R., Toney, B., Carolina, N., Llopis, F., and Fox, J. (2009). Explaining entrepreneurial intentions of university students : a cross-cultural study. International Journal of Entrepreneurial Behaviour & Research, 571–594.
Rialp, A., Rialp, J., and Knight, G. A. (2005). The phenomenon of early internationalizing firms: What do we know after a decade (1993-2003) of scientific inquiry? International Business Review, 14(2), 147–166. https://doi.org/10.1016/j.ibusrev.2004.04.006
Ruzzier, M., Douglas, E. J., Ruzzier, M. K., and Hojnik, J. (2020). International entrepreneurial orientation and the intention to internationalize. Sustainability (Switzerland), 12(14), 1–20. https://doi.org/10.3390/su12145647
Schwartz, S. H. (2003). A Proposal for Measuring Value Orientations across Nations. Questionnaire Package of the European Social Survey, 259(290), 261.
Scott, W. R. (1995). Institutions and organizations. In Thousand Oaks. CA: Sage Publications.
Shane, S. (1993). Cultural influences on national rates of innovation. Journal of Business Venturing, 8(1), 59–73. https://doi.org/10.1016/0883-9026(93)90011-S
Shane, S. A. (1992). Why do some societies invent more than others? Journal of Business Venturing, 7(1), 29–46. https://doi.org/10.1016/0883-9026(92)90033-N
Shane, S., and Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research. The Academy of Management Review, 25(1), 217–226.

Shannon, L. M., and Begley, T. M. (2008). Antecedents of the Four-Factor model of cultural Intelligence. In Handbook of cultural intelligence: Theory, measurement, and applications (pp. 41–55).
Shinnar, R., Pruett, M., and Toney, B. (2009). Entrepreneurship Education : Attitudes Across Entrepreneurship Education : Attitudes Across Campus. Journal of Education for Business, 84(3), 151–159.
Shirokova, G., Osiyevskyy, O., and Bogatyreva, K. (2016). Exploring the intention–behaviour link in student entrepreneurship: Moderating effects of individual and environmental characteristics. European Management Journal, 34(4), 386–399. https://doi.org/10.1016/j.emj.2015.12.007
Sieger, P., Raemy, L., Zellweger, T., Fueglistaller, U., and Hatak, I. (2021). (GUESSS) Global Student Entrepreneurship 2021: Insights From 58 Countries 2021 GUESSS Global Report. 1–28. http://www.guesssurvey.org/resources/PDF_InterReports/GUESSS_Global_2018.pdf
Sommet, N., and Morselli, D. (2017). Keep calm and learn multilevel logistic modeling: A simplified three-step procedure using stata, R, Mplus, and SPSS. International Review of Social Psychology, 30(1), 203–218. https://doi.org/10.5334/irsp.90
Stephan, U., and Uhlaner, L. M. (2010). Performance-based vs socially supportive culture: A cross-national study of descriptive norms and entrepreneurship. Journal of International Business Studies, 41(8), 1347–1364. https://doi.org/10.1057/jibs.2010.14
Taras, V., Kirkman, B. L., and Steel, P. (2010). Examining the Impact of Culture's Consequences: A Three-Decade, Multilevel, Meta-Analytic Review of Hofstede's Cultural Value Dimensions. Journal of Applied Psychology, 95(3), 405–439. https://doi.org/10.1037/a0018938
Tarique, I., and Takeuchi, R. (2008). Developing Cultural Intelligence the Roles of International nonwork experiences. In Handbook of cultural intelligence: Theory, measurement, and applications (pp. 56–70).
Terjesen, S., Hessels, J., and Li, D. (2016). Comparative International Entrepreneurship: A Review and Research Agenda. In Journal of Management (Vol. 42, Issue 1). https://doi.org/10.1177/0149206313486259
Thompson, E. R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. Entrepreneurship: Theory and Practice, 33(3), 669–695. https://doi.org/10.1111/j.1540-6520.2009.00321.x
Tian, M., Deng, P., Zhang, Y., and Salmador, M. P. (2018). How does culture influence innovation? A systematic literature review. Management Decision, 56(5), 1088–1107. https://doi.org/10.1108/MD-05-2017-0462
Vahlne, J. E., and Johanson, J. (2020). The Uppsala model: Networks and micro-foundations. Journal of International Business Studies, 51(1), 4–10. https://doi.org/10.1057/s41267-019-00277-x
Van Auken, H., Fry, F. L., and Stephens, P. (2006). The influence of Role models on Entrepreneurial intentions. Journal of Developmental Entrepreneurship, 11(2), 157–167.
Vanderstraeten, J., Slabbinck, H., Phan, T. T., and Ooms, F. (2021). Global University Entrepreneurial Spirit Students Survey - 2021 Belgium National Report. https://www.guesssurvey.org/resources/nat_2021/GUESSS_Report_2021_Belgium.pdf
Vecchione, M., Schwartz, S., Alessandri, G., Döring, A. K., Castellani, V., and Caprara, M. G. (2016). Stability and change of basic personal values in early adulthood: An 8-year longitudinal study. Journal of Research in Personality, 63, 111–122.
Wood, E. D., Peters, H. Y. Z. S., Wood, E. D., St, H. Y. Z., and Short-term, P. (2014). Short-term cross-cultural study tours : impact on cultural intelligence. In The International Journal of Human Resource Management (Vol. 25, Issue 4, pp. 558–570). Taylor & Francis. https://doi.org/10.1080/09585192.2013.796315

Zeitoun, H., Nordberg, D., and Homberg, F. (2019). The dark and bright sides of hubris: Conceptual implications for leadership and governance research. Leadership, 15(6), 647–672. https://doi.org/10.1177/1742715019848198

Zozimo, R., Jack, S., and Hamilton, E. (2017). Entrepreneurial learning from observing role models. Entrepreneurship and Regional Development, 29(9–10), 889–911.

Zucchella, A. (2021). International entrepreneurship and the internationalization phenomenon: taking stock, looking ahead. International Business Review, 30(2), 101800. https://doi.org/10.1016/j.ibusrev.2021.101800