

Research Article

Cross-Cultural Competences and International Entrepreneurial Intention: A Study on Entrepreneurship Education

Shuijing Jie and Rainer Harms

Dutch Institute for Knowledge Intensive Entrepreneurship (NIKOS), University of Twente, 7522 NB Enschede, Netherlands

Correspondence should be addressed to Shuijing Jie; s.jie@utwente.nl

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To identify and foster potential international entrepreneurs are important goals for entrepreneurship education. Based on the theory of planned behavior (TPB), we argue that International entrepreneurial intention (IEI) is a predictor of international entrepreneurship (IE). In addition, cross-cultural competences are hypothesized as antecedents to IEI and moderators of the relationship between TPB elements and IEI. We integrate two elements of cross-cultural competences (global mindset and cultural intelligence) in a TPB-framework to identify the drivers of students' IEI. We analyze a sample of 84 students with OLS regression and moderation analysis. OLS regression results reveal no significant direct effects from cultural intelligence and global mindset on IEI. Moderation analyses suggest a negative, significant moderating effect of cultural intelligence on the relationship between personal attitude and IEI and on subjective norms and IEI. Therefore, simply enhancing global mindset and cultural intelligence does not contribute to students' IEI. More is required from entrepreneurship education, such as improving the perception of international entrepreneurship as a valuable career choice.

1. Introduction

Entrepreneurship education has been acknowledged as an effective way to develop students' entrepreneurial intention [1]. With increasing recognition of the importance of international entrepreneurship, entrepreneurship educators may also want to strengthen students' international entrepreneurial intention (IEI). International entrepreneurship (IE) is defined as "the discovery, enactment, evaluation, and exploitation of opportunities - across national borders - to create future goods and service" [2, p. 7]. IE is playing an important role in countries' economic development. For example, Eurofund revealed that around 20% of the young enterprises in Europe are born global [3]. These new startups contributed significantly to job creation and welfare in Europe [4]. According to McKinsey, 86% of tech-based startups are "born global" in the USA [5], and 360 million people are now engaging in cross border e-commerce worldwide [5]. Therefore, to identify and to support students who intend to expand their entrepreneurial activities internationally are a key goal for entrepreneurship education.

The theory of planned behavior (TPB) [6, 7] argues that entrepreneurial intention is an effective predictor for entrepreneurial behavior [8]. The central tenet of TPB [9] is that planned behaviors (such as international entrepreneurship) are intentional and can be predicted by intention towards that behavior [10]. Prior studies have confirmed the validity of TPB in predicting entrepreneurial intention (EI) [11]. For example, Van Gelderen et al. [11] reported that TPB can explain 38% of the variance of EI. With regard to IEI, Sommer [12] showed that there is a positive relationship (path coefficient of .32) between IE self-efficacy and IEI.

Previous research has shown that international entrepreneurs need to deal with numerous cross-cultural issues [13]. Hence, cross-cultural competence is a critical driver of international performance [14]. Two main cross-cultural competences [15] are cultural intelligence (CQ) and global mindset (GM). Both are regarded as prerequisites for intentions and success in the international business context [16, 17]. For example, compared to entrepreneurs that have a low degree of cross-cultural competences, highly cross-culturally

competent entrepreneurs perform better at identifying international business opportunities [18].

CQ is person's "capability for successful adaptation to new cultural settings, that is, for unfamiliar settings attributable to cultural contexts" [19, p. 5]. CQ enables individuals to conduct appropriate behavior in foreign cultural contexts [20]. Such behaviors lower the risk of business activities in new cultures. A lower risk could trigger individuals' intention to engage in international entrepreneurship. GM is a mindset that "combines an openness to and awareness of diversity across cultures and markets with a propensity and ability to synthesize across this diversity" [21, p. 117]. GM strengthens individuals' willingness to take risks [22]. With such willingness, individuals would be more likely to engage in IE activities. Also, GM raises global entrepreneurs' alertness to diversity and fosters creative thinking [23].

We believe that TPB-based models on IEI can profit from an integration of the cultural competence literature [12, 24]. TPB addresses the link between intention and attitude, subjective norms, and perceived behavioral control. The strength of these links may be enhanced by CQ and GM [25]. Second, a combination of both CQ and GM in one model is warranted, as both constructs overlap yet also differ in key aspects [17]. For example, CQ focuses on the behavioral ability to interact interpersonally, and GM stresses awareness and integration of diversity across cultures [26]. Third, CQ and GM may be related directly to IEI. Hence, to derive a more complete explanation and counter issues of missing variable bias, an integration of cultural competences into the TPB model is warranted.

This study integrates CQ, GM, and the standard TPB model to identify the drivers of students' IEI. The study's objectives are (1) identify whether GM and CQ could lead to IEI directly; (2) evaluate the possible moderating influence of GM and CQ on TPB elements to IEI; and (3) assess the effect of the same factors on EI (instead of IEI) to show whether the effects of CQ and GM are unique for IEI rather than both IEI and EI. Doing so contributes to the international entrepreneurship literature by exploring drivers of IEI. In addition, this study provides indications for universities' entrepreneurship education programs on how to strengthen students' IEI.

2. Theory and Hypotheses

2.1. TPB and (International) Entrepreneurial Intention. TPB postulates three conceptually independent determinants of entrepreneurial intention, the "self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future" [27, p. 676]. The first determinant is the attitude towards the behavior, which refers to the extent of an individual's positive evaluation of IE. It reflects the desirability of engaging in IEI activities. A positive personal attitude towards IE indicates that the respondent is more in favor of engaging in IEI activities than in other career paths [28]. The second predictor is "subjective norms." It refers to the perceived opinions from social reference groups (such as

family members and friends) regarding whether the individual should perform IE. Given highly supportive subjective norms from surrounding important people, individual would feel encouraged to engage in IE. The third antecedent is the level of perceived behavioral control (PBC), which refers to the perceived ease of performing a particular behavior [29]. PBC reflects the perceived ability to become an international entrepreneur [28]. People who perceive to be more able to perform international entrepreneurship activities are more likely to engage in them than in other career paths.

We expect that individuals with a positive personal attitude, subjective norms, and perceived behavioral control would be more likely to have intentions to engage in international entrepreneurship. Formally,

(H1) *the higher the degree of personal attitudes, the higher the international entrepreneurial intention;*

(H2) *the higher the degree of subjective norms, the higher the international entrepreneurial intention;*

(H3) *the higher the degree of perceived behavioral control, the higher the international entrepreneurial intention.*

2.2. Cultural Intelligence and IEI. CQ is defined as "a person's capability for successful adaptation to new cultural settings, that is, for unfamiliar settings attributable to cultural contexts" [19, p.5]. It consists of four facets: a cognitive facet, a motivational facet, a behavioral facet, and a process facet [26].

The cognitive facet of CQ is embodied in one's own personality, social identity, and social roles. It refers to an individual's capability to adapt effectively to new cultural contexts. The cognitive facet contains three critical elements. First is the cognitive flexibility, which means a constant reshaping and adaptation of the self when operating within a new cultural setting. Second is the reorganization capability to reformulate one's self-concept in new situations. Third are strong reasoning skills, which help to understand reasons behind phenomena in new cultures. In the global market, high CQ individuals find it easier to understand the foreign environment, acquire market knowledge, reshape their own cognitions, and recognize opportunities. All these allow an entrepreneur to choose an effective product-market fit [30].

The motivational facet of CQ focuses on a person's self-efficacy and personal motives. Perceived self-efficacy is a positive judgement of one's capability [31]. Persons who believe in their capabilities to understand people from other cultures are more likely to engage in international activities. In addition, high efficacy means "when the going gets tough, the tough get going." Individuals who encounter barriers will reengage with greater vigor rather than quit. Hence, individuals with high CQ would highly judge their personal capability and have a greater vigor to engage in IEI activities.

The behavioral facet of CQ suggests that international activities need actual implementation. A high CQ not only is composed of knowledge but requires action in specific situations. People with high CQ are better able to behave appropriately in different cross-cultural situations. For example, this could mean the selection of an appropriate strategy. In addition, individuals with high CQ are talented mimics [26].

Mimicry means to imitate key practices from others and serves as a vital capability for entrepreneurs in foreign markets [32]. With such a capability, individuals could discover market opportunities easier than others in other cultural contexts. Therefore, entrepreneurs with a high level of CQ would have a stronger intention to conduct international entrepreneurship.

From the process perspective of CQ, a person with high level of CQ has a greater capacity to store and categorize new experiences. This may decrease the uncertainty of conducting international entrepreneurial activities and thus increase the intention to engage. For example, international experience has a significant positive influence on IEI [12].

From our discussion of the four facets of CQ, we hypothesize that individuals with a higher level of CQ would have greater knowledge, more motivation, better executive efficiency, and more experience with regard to international entrepreneurial activities. Formally,

(H4) the higher the degree of cultural intelligence, the higher the international entrepreneurial intention.

CQ moderates the TPB-IEI relationship as well. CQ enables individuals with a better understanding of foreign cultures. As a consequence, uncertainty with regard to the international environment will be lower, and the international environment will be regarded as more friendly. For example, Nyaupane et al. [33] found that students' abroad experience changed their original attitude towards local people. For instance, students' positive attitudes towards Dutch people increased at the end of an exchange. Hence, the familiarity with the new culture would strengthen the link between an individuals' attitude and IEI. Therefore, we assume that

(H4a) cultural intelligence moderates the impact of personal attitude on IEI: the higher the CQ, the stronger the PA-IEI relationship.

Similarly, based on the cognitive facet of CQ we argue that individuals with high CQ have more knowledge of foreign cultures. With more knowledge, they are more confident in their judgement and therefore develop a distance to others' opinions [34]. Hence, high CQ enables individuals to free themselves from their surrounding peoples' opinions. Formally

(H4b) cultural intelligence moderates the impact of subjective norms on IEI: the higher the CQ, the weaker the SN-IEI relationship.

In addition, the behavioral aspect of CQ suggests that adaptation is not only thinking about what to do but also taking actions in specific situations. This indicates that an entrepreneur with a high level of CQ is able to determine when and how to perform activities related to international entrepreneurship. Such a behavioral control ability reduces the risk and thus increases the willingness to conduct IE. Therefore, a higher degree of CQ could enhance the effect of PBC on IEI. We assume that

(H4c) cultural intelligence moderates the impact of perceived behavioral control on IEI: the higher the CQ, the stronger the PBC-IEI relationship.

2.3. Global Mindset and IEI. GM is defined as a mindset "that combines an openness to and awareness of diversity across cultures and markets with a propensity and ability to synthesize across this diversity" [21, p. 117]. A global mindset captures a frame of reference based on interacting diversity [26]. A global mindset involves scanning the world from a broad perspective, looking for unexpected trends and opportunities to achieve personal, professional, or organizational objectives, and searching for the broad picture and context surrounding situations [35]. It also entails embracing the complexity and contradictions inherent in global interactions. This implies that entrepreneurs both accept and embrace the complexity involved in adapting to foreign markets in a global economy. GM involves four facets: personal attributes, cognitive knowledge and skills, motivation, and resources for adapting behavior [15].

The personal attributes of GM refer to a state of mind that is characterized by an orientation towards the outside and openness and willingness to learn from alternative systems of meaning held by others [36]. Having a global mindset requires six personal characteristics: knowledge, conceptualization, flexibility, sensitivity, judgement, and reflection [37]. With these personal attributes, people tend to be open to themselves and others by rethinking boundaries and changing their behavior. Therefore, individuals with a strong GM would be more open to and eager to learn more about international entrepreneurial activities, which may lead to a stronger intention to engage in them.

The cognitive perspective of GM refers to a combination of openness and awareness of diversity across cultures and markets and a propensity and ability to synthesize across this diversity [21]. GM is the filter through which people look at the world [21]. Knowledge, understanding the world, and skills that enable to effectively work in a global context are necessary to sustain and develop a global mindset [38]. A better understanding of the world will lead to lower uncertainty. A higher degree of skills enables entrepreneurs to execute strategies effectively in the global context. Such knowledge and skills enable people to respond to and to create market opportunities. Both elements enable entrepreneurs to conduct international entrepreneurship. An entrepreneur with a grasp of the needs of different markets can build bridges between the needs of different markets and the venture's global experience and capabilities.

The motivational facet of GM addresses the willingness to engage in global activities. The motivational facet of GM indicates that individuals with a strong GM are more willing to learn from others and adjust themselves to dynamic global environments. With a strong GM, entrepreneurs are more motivated to seek rather than reject globally oriented behavior, such as international entrepreneurship activities.

The behavioral facet of GM makes entrepreneurs not only think globally but also act locally. Kefalas [39] argues that a global mindset allows individuals to see the world as a whole and to use this perspective to design value-maximization

strategies for everyone involved. Thus, a strong GM makes it possible for entrepreneurs to strengthen value-maximizing strategies and compete in a global market. Equipped with these competitive abilities, entrepreneurs may be more likely to engage in international entrepreneurial activities.

In summary, we expect that people with a strong GM would have personal attributes that are more positive towards international activities, more cognitive knowledge and skills, more motivation, and better behavioral capabilities, which leads to international entrepreneurial intention. Formally

(H5) *the higher the degree of global mindset, the higher the international entrepreneurial intention.*

We propose no interactions between GM and TPB-antecedents because the GM constructs tap less into behavioral components than CQ. For example, Andresen and Bergdolt [15] find that only 40% of the items of the GM construct indicate a behavioral component, whereas 86% of the items of CQ have a behavioral perspective. Thus, we argue that GM may matter, but matter less for interactions that involve behavioral intentions. As a consequence, we do not hypothesize moderation effects of GM and TPB for GM's lower degree of behavioral components.

2.4. CQ, GM, and IEI. Only few studies focus on the relationship between CQ and GM. Drawing on Earley and Mosakowski [40], Levy et al. [36] argue that it is difficult to develop the requisite set of interpersonal skills (CQ) without a fairly high level of global mindset (GM). Thus they argued that GM is the prerequisite of those skills and abilities that make up CQ. In another vein, Lovvorn and Chen [16] found that CQ acts as a moderator in the relationship between international experience and global mindset: individuals need cultural intelligence to transform their experiences into a global mindset. Ramsey et al. [41] identified the application scope of CQ and GM. They imply that the concept of CQ ought to be used when the context is focused on interpersonal outcomes, while GM ought to be used when it focuses more on strategic outcomes.

Based on the arguments above, we suppose an interaction between CQ and GM. CQ reflects the ability for effective interpersonal behavior in the global context. GM reflects the ability to recognize and synthesize information from foreign cultures. Persons who are able to reflect and synthesize this information (GM) and use this perspective in their personal interactions (CQ) would be more effective than those that would lack one of these elements. We propose that a combination of GM and CQ would make an entrepreneur more aware and able to be inclined towards international entrepreneurship. Formally

(H6) *global mindset moderates the impact of cultural intelligence on IEI: the higher the GM, the stronger the CQ-IEI relationship.*

Figure 1 shows the conceptual model of this study.

3. Methods

3.1. Sample and Data Collection. This study is based on undergraduate university business students enrolled in an

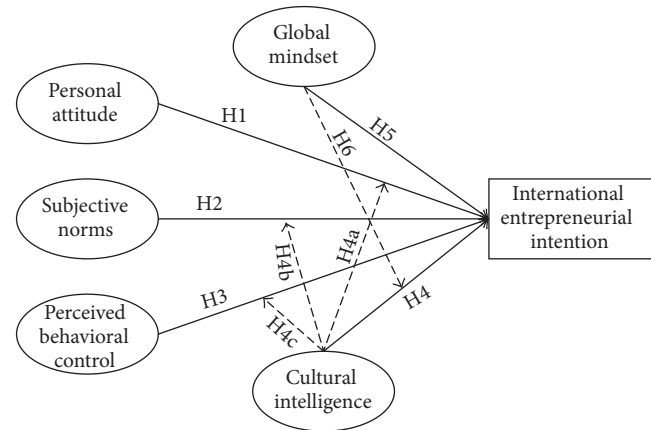


FIGURE 1: The conceptual model of this study.

entrepreneurship course ($N = 120$) at a Dutch university. We study the drivers of IEI among business students for three reasons [11]. First, the majority of business students (except accounting students) are not educated with an institutionalized professional identity in mind, which gives space and options for students' career development. Second, business students are exposed to business and management knowledge, and students equipped with this knowledge could be pulled rather than pushed into entrepreneurship. Third, entrepreneurship education has been an important part of business administration education. In addition, studying at an international university, business students get access to a unique international and cross-cultural environment, which provides a fertile ground for nurturing international entrepreneurs.

Data was collected through a self-report survey. A randomly selected group received a questionnaire that focusses on IEI (*Questionnaire A* available in Supplementary Material available online at <https://doi.org/10.1155/2017/9042132>), while the other participants received the questionnaire on EI. During one class session, most students finished the printed survey. We also provided an online survey for those who did not attend this particular class or were unwilling or unable to finalize the survey in class. After dropping cases with missing data, our sample consists of 84 respondents (41 from the *international* group, 43 from the *national* group), with a response rate of 70%.

Chi-square tests show that there are no significant differences between these two groups on students' age (*Pearson Chi-square* = 9.122, $p = .521$), gender (*Pearson Chi-square* = 0.001, $p = .979$), abroad experience (*Pearson Chi-square* = 18.421, $p = .142$), language skills (*Pearson Chi-square* = 3.430, $p = .489$), nationality (*Pearson Chi-square* = 8.854, $p = .546$), entrepreneurial experience (*Pearson Chi-square* = .009, $p = .923$), and parents' entrepreneurial experience (*Pearson Chi-square* = .607, $p = .436$). 52.4% of the students are Dutch, and 35.7% are German. Most of them (about 70%) are between 19 and 21 years old and 56% are male. About 70% of the students have international study or work experience. More details are shown in Table 1.

TABLE 1: Descriptive statistics of the sample characteristics.

Item	Category	International			National			Group difference	
		Count	Percent (%)	Cum. percent (%)	Count	Percent (%)	Cum. percent (%)	Pearson Chi-square	Asymptotic significance (2-sided)
Age	19	11	26.8	26.8	12	24.9	24.9	9.122	.521
	20	13	31.7	58.5	10	23.2	51.2		
	21	6	14.6	73.2	8	18.6	69.8		
	Others	11	26.8	100	13	30.2	100		
Gender	Male	23	56.1	56.1	24	55.8	55.8	.001	.979
	Female	18	43.9	100	19	44.2	100		
Years of abroad experience	0	11	26.8	26.8	14	32.6	32.6	18.421	.142
	1-5	13	31.7	58.5	4	9.3	41.9		
	2-10	6	14.6	73.2	10	23.3	65.1		
	Others	11	26.8	100	13	30.2	100		
Number of foreign languages	1	11	26.8	26.8	7	16.3	16.3	3.430	.489
	2	17	41.5	68.3	17	39.5	55.8		
	3	9	22.0	90.2	14	32.6	88.4		
	Others	4	9.8	100	5	11.6	100		
Country of birth	Netherlands	20	48.8	48.8	24	55.8	55.8	8.854	.546
	Germany	17	41.5	90.2	13	30.2	86.0		
	Others	4	9.7	100	6	13.9	100		
Self-entrepreneurial experience	Yes	12	29.3	29.3	13	30.2	30.2	.009	.923
	No	29	70.7	100	30	69.8	100		
Parents' entrepreneurial experience	Yes	15	36.6	36.6	12	27.9	27.9	.607	.436
	No	26	63.4	100	30	72.1	100		

TABLE 2: Reliability statistics of the scales.

	International			National		
	Cronbach's α	Cronbach's α	Dropped item	Cronbach's α	Cronbach's α	Dropped item
Total	0.895	—	—	0.869	—	—
IEI/EI	0.971	—	—	0.957	—	—
PA	0.896	—	—	0.916	—	—
SN	0.804	—	—	0.649	0.665	— (no improvement)
PBC	0.716	—	—	0.788	—	—
CQ	0.776	—	—	0.734	—	—
GM	0.559	0.648	Item 1	0.715	—	—

TABLE 3: Sampling adequacy.

	International	National
KMO and Bartlett's test		
Kaiser-Meyer-Olkin measure of sampling adequacy	.485	.597
Bartlett's test of sphericity		
<i>Approx. Chi-square</i>	1183.980	1107.208
<i>Df</i>	528	561
<i>Sig.</i>	.000	.000

3.2. *Operationalization.* All items were measured using 7-point rating scales. In the final analysis, the value for each scale is represented by the unweighted mean of its items. The items for the dependent variables, IEI and EI, were taken from Kautonen et al. [10]. They reflect the intention to engage in activities aimed at starting an international new venture (or a domestic new venture). To differentiate between IEI and EI, the key word “international” was added to all items in the case of the international group (similarly hereinafter).

Personal attitude (PA) was measured with students' perceptions on taking steps to start an international new startup in the future by rating six adjective pairs. *Subjective norms* (SN) was measured with two sets of scales: one capturing the opinion from students' surrounding important people (family members, best friends, and other general important people) on the topic of the students' potential engagement in starting an international new venture and the other measuring the degree to which students consider the opinions of others [10]. These scores were multiplied to derive the SN score. *Perceived behavioral control* (PBC) was measured with four items, with two addressing the ease of performing international entrepreneurial activities and the other two capturing students' felt control over such behavior. Items for all the above constructs are taken from Kautonen et al. [10].

Cultural intelligence (CQ) was measured by nine items of the mini-CQS developed by Ang and Van Dyne [42]. While the original CQ scale contains 20 items [43, 44], we opted for the mini-CQS to shorten the survey with an eye on the response rate.

Global mindset (GM) was measured with six items which addressed students' attitudes towards and feelings about acting in diverse cultural contexts. Items were adopted from Gupta and Govindarajan [21]. This scale assesses individuals' rather than organizational GM. We transferred the statements from Gupta and Govindarajan into rating scales.

We add students' gender as the control variable. Prior literature has identified gender as an important factor for entrepreneurial intention [45].

The scales are reliable (Cronbach's $\alpha > 0.7$, see Table 2). When we divide the sample into the international and national group, the reliabilities differ slightly. In the international group, scales for PA, SN, PBC, IEI, and CQ passed the reliability threshold, but GM did not. This is acceptable, however, taking into account the small sample size. In the national group, all scales are reliable except SN. As the deletion of the lowest scoring item did not improve Cronbach's α for SN, we kept all items. Sampling adequacy is acceptable [46] for the national group survey (KMO = .597 > .5, $p = .000$, see Table 3). For the international group we have slightly lower values (KMO = .485 < .5, $p = .000$). This is also acceptable, however, taking into account the small sample size.

3.3. *Method of Analysis.* Due to the low sample size, we were restricted in the use of methods of analysis and used OLS regression to test the relationship between personal attitude, subjective norms, perceived behavioral control, cultural intelligence, and global mindset on (international) entrepreneurial intention. To test the moderation effects, we use moderated multiple regression [47]. We report the standardized coefficients.

4. Results

Table 4 displays the correlation table. For the first part of the analyses, two OLS regressions were calculated. Results in Table 5 suggest that personal attitude has a positive, significant relationship with both international entrepreneurial intention ($b = .611$, $p = .000$) and national entrepreneurial intention ($b = .892$, $p = .000$). The results provide support for hypothesis 1.

TABLE 4: Correlation table.

	International							National						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
IEI/EI	1							1						
Gender	-.046	1						-.264	1					
PA	.726**	.105	1					.907**	-.246	1				
SN	.546**	.180	.563**	1				.356*	-.038	.270	1			
PBC	.499**	.130	.456**	.437**	1			.302*	-.007	.320*	.362*	1		
GM	.167	.272	.379*	.228	.267	1		.082	.154	.145	.186	.290	1	
CQ	.065	.061	.088	.029	.291	.660**	1	.015	-.150	-.038	.209	.206	.477**	1

** $p < .05$ and * $p < .1$, two-tailed.

TABLE 5: Direct effects on (international) entrepreneurial intention.

Variables	International	National
(Constant)		
Gender (female = 1)	-.125 (.279)	-.014 (.848)
Personal attitude	.611 (.000)***	.892 (.000)***
Subjective norms	.181 (.188)	.123 (.099)*
Perceived behavioral control	.182 (.173)	-.014 (.848)
Cultural intelligence	.069 (.658)	.072 (.381)
Global mindset	-.166 (.324)	-.098 (.234)
	$R^2 = .616^{***}$	$R^2 = .845^{***}$
	$Df = 40$	$Df = 42$
	$F = 9.087$	$F = 32.767$

*** $p < .01$ and * $p < .1$.

In addition, the results indicate no significant findings on other direct relationships for either the international or national entrepreneurial intention.

To test the moderation hypotheses, a series of moderated regression analyses was run. In models 1a–e, moderations of CQ on the relationship between TBP-antecedents (PA, SN, and PBC) and IEI were analyzed. The results in Table 5 indicate a negative, significant interaction between CQ and PA in the model with IEI (model 1c, $b = -.296$, $p < .05$). Explained variance increases by 7.4%. Results also suggest a negative interaction between CQ and SN in the model with IEI (model 1d, $b = -.244$, $p < .05$), which increases the explained variance by 5%. These findings run counter to hypothesis 4a, while they support hypothesis 4b. The result shows no significant moderating effects of CQ on PBC, which fails to support hypothesis 4c.

In models 2a–e, moderations of CQ on the relationships between PA, SN, and PBC and EI were tested. The results in Table 6 indicate no interaction between CQ and PA, SN, and PBC in the model with EI as a dependent variable. Models 1f and 2f show the moderation of GM on CQ for IEI and EI. Results show no significant interactions between GM and CQ for either IEI or EI.

To illustrate the significant interactions regarding hypotheses 4a and 4b, we plot the moderation effects of CQ from models 1c and 1d. As shown in Figure 2, those that score high on CQ have a weaker relationship between PA and IEI (less steep slope). This runs counter to hypothesis 4a. Figure 3 shows the interaction effect of CQ

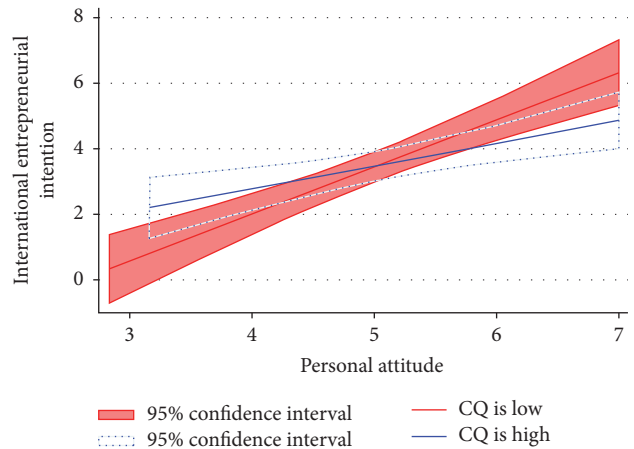


FIGURE 2: The interaction effect of CQ and PA on IEI.

on the relationship between SN and IEI. Those that score high on CQ have a weaker relationship between SN and IEI, which lends support to hypothesis 4b.

5. Discussion

The goal of this study was to identify the drivers of students' IEI, by analyzing the effects of two cross-cultural competences, cultural intelligence and global mindset, in the context of the TPB framework. Our analyses reveal surprising findings (Table 7).

TABLE 6: Moderated regression analyses.

Variables	International entrepreneurial intention				Entrepreneurial intention							
	1a	1b	1c	1d	1e	1f	2a	2b	2c	2d	2e	2f
(Constant)												
Gender	-.161	-.159	-.196*	-.157	-.172	-.122	-.046	-.041	-.038	-.039	-.035	-.041
Personal attitude	.556***	.556***	.544***	.603***	.533***	.610***	.869***	.873***	.873***	.863***	.847***	.885***
Subjective norms	.180	.175	.280**	.224*	.191	.203	.128*	.124*	.126*	.140*	.138*	.132*
Perceived behavioral control	.188	.201	.086	.103	.140	.162	-.023	-.027	-.025	-.026	-.018	-.009
Cultural intelligence		-.039	-.012	.025	-.051			.023	.031	.018	.019	
CQ*PA			-.296**						.032			
CQ*SN				-.244**						-.035		
CQ*PBC					-.176							
Global mindset						-.144						-.059
GM*CQ						-.102						.051
	$R^2 = .603^{***}$	$R^2 = .605^{***}$	$R^2 = .678^{***}$	$R^2 = .655^{***}$	$R^2 = .630^{***}$	$R^2 = .622^{***}$	$R^2 = .838^{***}$	$R^2 = .839^{***}$	$R^2 = .840^{***}$	$R^2 = .840^{***}$	$R^2 = .850^{***}$	$R^2 = .844^{***}$
	$\Delta R^2 = .001$	$\Delta R^2 = .001$	$\Delta R^2 = .074$	$\Delta R^2 = .050$	$\Delta R^2 = .025$	$\Delta R^2 = .008$	$\Delta R^2 = .000$	$\Delta R^2 = .000$	$\Delta R^2 = .001$	$\Delta R^2 = .001$	$\Delta R^2 = .011$	$\Delta R^2 = .002$
	$Df = 40$	$Df = 40$	$Df = 40$	$Df = 40$	$Df = 40$	$Df = 40$	$Df = 42$	$Df = 42$	$Df = 42$	$Df = 42$	$Df = 42$	$Df = 42$
	$F = 13.684$	$F = 10.703$	$F = 11.942$	$F = 10.747$	$F = 9.645$	$F = 9.315$	$F = 49.321$	$F = 38.546$	$F = 31.465$	$F = 31.476$	$F = 34.044$	$F = 32.532$

*** $p < .01$, ** $p < .05$, and * $p < .1$.

TABLE 7: Summary results of hypothesis tests.

Hypothesis	Expected	Result
(H1) PA → IEI	pos.	pos.
(H2) SN → IEI	pos.	n.s.
(H3) PBC → IEI	pos.	n.s.
(H4) CQ → IEI	pos.	n.s.
(H4a) CQ * PA → IEI	pos.	neg.
(H4b) CQ * SN → IEI	neg.	neg.
(H4c) CQ * PBC → IEI	pos.	n.s.
(H5) GM → IEI	pos.	n.s.
(H6) GM * CQ → IEI	pos.	n.s.

pos.: positive; neg.: negative; n.s.: not significant.

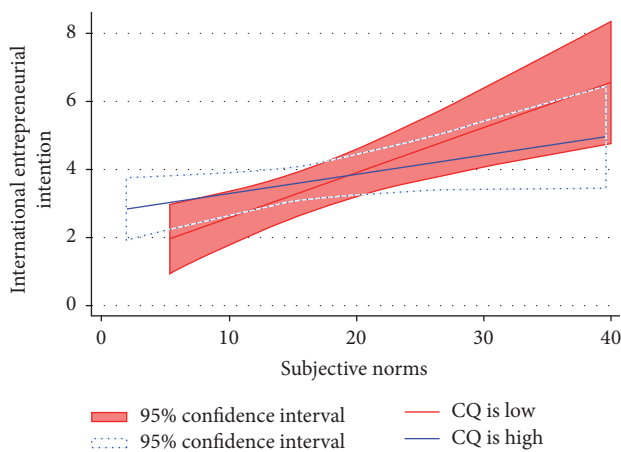


FIGURE 3: The interaction effect of CQ and SN on IEI.

Literature shows that personal attitude, subjective norms, and perceived behavioral control have a significant positive relationship with entrepreneurial intention [10]. However, our empirical results show only a positive relationship of PA on IEI. This indicates that the attitude towards IEI may be an important antecedent to intention. Subjective norms show no significant relationship with IEI. Even though the SN constructs are an importance-weighted indicator of others' norms, there is a gap between the perceived social norms and intention. A potential reason may be that, among many other factors [48], in particular parents influence on entrepreneurial career decisions may be limited [49]. Neither does PBC have a significant influence on IEI. While contrary to the mainstream, our finding is consistent with the study of Van Gelderen et al. [11], who show that components of PBC (perseverance and self-efficacy) lack support in explaining EI. We suggest that PBC alone may not motivate intentions that lead to action. It facilitates action for those who are motivated to engage in it. It can also imply that students realize that while they may experience as much control as possible, entrepreneurial activities need a lot of external resources, such as financial support and business networks. As students may have a lower level of these resources, their own degree of PBC may matter less for their IEI.

Direct effects analyses show that neither global mindset nor cultural intelligence has a significant influence on IEI. These results are surprising, as we have provided strong arguments for such potential links. We suggest that GM may not be directly related to IEI because GM refers to a mindset rather than to intentions that lead to actions. With regard to the missing link between CQ and IEI, we can speculate that CQ as such is context-free and may be enacted in any other career choice, with an international entrepreneurial intention being only one possible career choice.

Moderation effects analyses show that only the interactions of CQ and PA as well as CQ and SN towards IEI are significant. From the discussion of the dimensions of CQ follows that a high degree of CQ implies a high degree of knowledge of and high adaptive capability of new cultural contexts. When individuals have enough knowledge of new cultural contexts and can adapt effectively to new cultures, they may not view conducting an international new business as challenging as without a high level of CQ. Also, students with a high level of CQ are more likely to see the difficulties in IE activities and hence are less likely to intend to act, even those that may initially value international entrepreneurship.

A similar moderation effect was found regarding the negative impact of CQ on SN-IEI relationship (Figure 3). The positive relation between SN and IEI is lower for high CQ students than for low CQ students. This suggests that those who have a low degree of CQ are impacted more in terms of IEI by what their environment says. It might be because sufficient knowledge of a new cultural context reduces the extent of importance of other important people's opinion. This result is in line with the independence of judgement that is facilitated by a high level of CQ and supports hypothesis 4b.

6. Conclusions

6.1. Theoretical Implications. Our study contributes to the literature by drawing upon the concepts of global mindset and cultural intelligence, to develop a framework that explains the antecedents of international entrepreneurial intention based on an addition to the TPB framework.

The significant moderation effects of CQ on the relationships between PA and IEI and SN and IEI show that it is useful to combine the literatures of cross-cultural competence

and international entrepreneurship to move closer to a complete model. Future studies could follow this direction and explore the relationship between cross-cultural competence and other constructs from the international entrepreneurship domain, for example, the international performance of international new ventures. In addition, exploring the mechanisms behind the relations would contribute to a deeper understanding of IE(I). We suggest integrating other constructs such as firm-level capabilities as a theoretical foundation for an application to our findings to international new ventures rather than student entrepreneurs. Further, our results show no significant direct linear relationships between GM and CQ to IEI. In addition, there may be nonlinear relationships between these constructs. Future studies may identify those nonlinear relationships. Studies following this direction take a step further to explain the role of cross-cultural competences in the field of international entrepreneurship and international entrepreneurship education.

6.2. Practical Implications. Prior studies confirmed the role of entrepreneurship education in enhancing students' EI [50–53]. For educators, policy makers, and university management, results of our study provide some important implications. First, if a limited link between TPB and IEI would be a result of a lack of in-depth education on IEI, educators could emphasize the international element more. Second, if a missing link between PBC and IEI would be a result of a lack of practical engagement with international entrepreneurship, entrepreneurship education could emphasize the international domain more, for example, by integrating international entrepreneurship in an applied Lean-Startup class [54] or by paying particular attention to the specifics of STEM students [55]. Third, since a high CQ could make students more independent of their environment's opinion, educators may think about how to introduce CQ into the curriculum.

6.3. Limitations and Future Research. This study has taken a step in the direction of analyzing the relationship between GM, CQ, PA, SN, PBC, and IEI/EI on a student sample. However, it is possible that analyses of target groups with different working or entrepreneurial experience may result in different findings. Also, the small sample size limits the choice of methods of analysis as well as the power of our results. Future studies could extend the sample size to fulfill the criteria for using Structural Equation Modelling, to reap its advantages compared to OLS [56]. In addition, other constructs could be added to our model in future studies. For instance, need for achievement, internal locus of control, self-efficacy [57], and social media network [58] are relevant constructs that could explain IEI.

Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

Acknowledgments

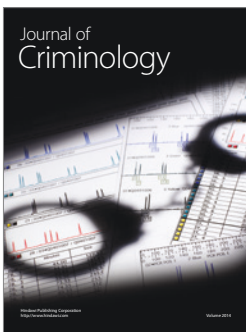
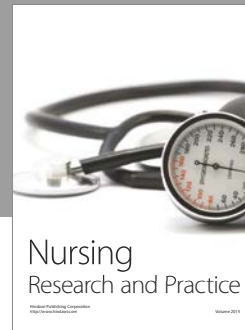
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