# The Influence of Entrepreneurial Climate on Student Entrepreneurial Intentions: A Cross-Country Analysis

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**ABSTRACT,**
**This study investigates how the entrepreneurial climate within universities influences the entrepreneurial intention of students across diverse cultural contexts. It draws upon the institutional theory and the cultural dimensions of Hofstede. A multilevel analysis is conducted which uses data from over 150,000 students in 25 countries from the GUESSS 2023 dataset. This study examines the effect of the university-level factors, university support and entrepreneurship education, on entrepreneurial intention and how this is moderated by the national cultural values uncertainty avoidance, masculinity and individualism. Results reveal that entrepreneurship education consistently enhances entrepreneurial intention, particularly in cultures with high uncertainty avoidance. In contrast, university support alone shows a negative effect, especially in masculine societies where competitive norms potentially undervalue institutional encouragement. However, individualism does not significantly moderate these effects. These findings suggest that institutional support is essential, and its effectiveness should be aligned with cultural values. This study contributes to the literature by highlighting conditional impacts of universities environments and offers implications for cultural entrepreneurship strategies.**

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**Keywords**
Entrepreneurial Intention, University Support, Entrepreneurship Education, National Culture, Multilevel Modelling, Entrepreneurial Climate

# 1. INTRODUCTION

## 1.1 Situation and Complication

Student entrepreneurship is being more recognized as a catalyst for economic growth and innovation. It acts as a long-term economic contributor, this is because early engagement in entrepreneurship often leads to sustained entrepreneurial careers which contribute to regional development (Hayter et al., 2017). Student entrepreneurship contributes to society as it promotes innovation and societal change from an academic environment (OECD & European Union, 2018).

Universities play an important role in supporting the entrepreneurial mindset and supportive environment. While individual characteristics are important, the university climate and regional factors also have a crucial influence in students' entrepreneurial activities (Bergmann, Hundt, & Sternberg, 2016). Moreover, entrepreneurship as a whole has become a priority for global policy due to the potential to drive economic growth, innovation and social mobility (Audretsch, 2002). Through structured programs, supportive ecosystems and exposure to entrepreneurial networks universities are playing an increasingly centralized role in promoting entrepreneurship among students (Fayolle & Liñán, 2014). Institutional efforts include things such as compulsory and elective entrepreneurship courses, mentorship programs, student incubators and funding schemes which are aimed at nascent entrepreneurs to lower the entry barriers for funding.

However, cross-national evidence concludes that entrepreneurial intentions vary substantially across the students. From the 2023 GUESSS report it is indicated that countries like Nigeria and Indonesia have students of which 50% intend to become entrepreneurs within 5 years of graduation. On the other hand, this is below 20% in countries like Japan, the Netherlands and France (Sieger et al., 2023). Such differences could be reflected because of economic incentives and labour market conditions, but they could also point towards deeper cultural and institutional disparities (e.g. Family Influence, University Support Systems) in how entrepreneurship is perceived and supported in these countries.

This discrepancy raises questions about the role of "entrepreneurial climate" in these universities, which is a term that is used to capture the collective influence of peer environments and university support (Franke & Lüthje, 2004; Guerrero et al., 2016). Recent empirical studies on Latin America (VanderLinde & Mera, 2024) emphasize that peer and family influence significantly form entrepreneurial intention. Next to that it states that general university environment only has a modest effect except if it includes direct engagement such as encouragement and hands-on activities. Such findings challenge a common assumption which says that simply creating a favourable atmosphere is sufficient. And instead suggest that targeted support mechanisms for entrepreneurship play a crucial role.

Despite the abundant research on the individual drivers of entrepreneurial intention, such as self-efficacy, attitudes and personality traits (Ajzen, 1991; Bird, 1988), relatively less attention has been paid to contextual variables, especially at the institutional and cultural levels. Studies such as those by Rauch & Hulsink (2015) and Nabi et al. (2017) let us see that entrepreneurship education has a positive effect on entrepreneurial intention, but the effectiveness differs across contexts. These contextual variables include institutional factors such as university supports systems and educational polices as well as cultural norms which shape societal attitudes towards entrepreneurship. The role of the national culture as a moderator of institutional effects remains underexplored.

Nearly two decades ago Franke & Lüthje (2004) proposed a model which links university climate and entrepreneurial intention, but there has been a limited empirical follow-up which utilized the contemporary multi-country data. VanderLinde and Mera (2024) highlights the need for a more nuanced cross-national analyses and recommends including social capital variables (e.g. peer support) alongside institutional indicators.

Aspects which remain under-investigated are the interaction between university-level support mechanisms and national-level cultural factors like individualism, uncertainty avoidance and masculinity dimensions by Hofstede (1980) as central to entrepreneurial intention and behaviour. Furthermore, there is a need for a multi-level statistical model which accounts for the nested nature of students in universities and the universities within cultural systems.

## 1.2 Research Objective and question

This study has the goal to analyse how various elements of entrepreneurial climate such as university support and entrepreneurship education affect student entrepreneurial intention across different national contexts. It seeks to explore how national cultural values moderate the relationship between entrepreneurial climate and entrepreneurial intentions utilizing Hofstede's cultural dimension as a theoretical lens.

*To what extent does the entrepreneurial climate at universities influence students' entrepreneurial intentions across different national contexts?*

## 1.3 Academic and practical relevance

This study aims to contribute to the research on entrepreneurship literature by integrating the institutional theory (Scott, 2014) and Hofstede's (1980) cultural dimensions in a multi-level framework. It examines how the entrepreneurial climate affects students' entrepreneurial intentions across different countries. The university level factors shape the attitudes of students towards entrepreneurship, changing subjective norms through peer and faculty expectations and enhancing the perceived behavioural control by helping with resources and support. It will leverage the large-scale data from GUESSS 2023, combined with external cultural and economic factors. The aim is to explore both the moderated and direct effect on entrepreneurial intention. It builds on and extends prior studies (e.g. Shirokova et al., 2016; VanderLinde & Mera, 2024) by explicitly modelling institutional-cultural interaction in a cross-country setting. It will utilize multi-level modelling which provides a robust methodological foundation for handling the hierarchical data structure and cross-level interactions.

The outcomes of this study have a direct implication for university administrators, policymakers and entrepreneurship educators. It identifies which way certain cultural tendencies have an impact on the relationship between entrepreneurial climate and entrepreneurial intent. This study provides empirical evidence to guide national strategies for development in entrepreneurship within universities by aligning educational program with cultural norms.

## 2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

### 2.1 Entrepreneurial Intentions Among University Students

Consistently the importance of personal and contextual factors gets highlighted in research on entrepreneurial intention among university students. Perceived behavioral control is the stronger predictor of entrepreneurial intention especially among students with limited entrepreneurial experience according to Zhang et al. (2014). According to Shahriar et al. (2024) the access to finance and entrepreneurship education is a signification factor in enhancing the intention of students to start a business in Bangladesh. On the other hand, entrepreneurial attitude is seen as the most influential factor according to Barba-Sánchez et al. (2022), while subjective norms have small impact. In Cameroon student entrepreneurship is driven largely by necessity, for opportunity-based ventures the main barriers are funding and corruption (Neneh, 2014). University support is highlighted as the most important role in shaping a positive entrepreneurial attitude according to Anjum et al (2023), where entrepreneurial attitude is a mediating effect on entrepreneurial intention. In the research of Lyu et al (2024) entrepreneurial attitude is also seen as a mediating factor for entrepreneurial intention. He states that the main drivers of entrepreneurial intention in China are risk-taking, self-efficacy and achievement.

We can state that a fundamental predictor of future entrepreneurial behaviour is entrepreneurial intention, it has become an important point in entrepreneurship research (Ajzen, 1991; Bird, 1988). Multiple models have been applied in entrepreneurship explaining how individuals develop entrepreneurial intentions based upon cognitive, motivation and contextual factors. (Krueger et al., 2000; Ajzen, 2020).

The institutional theory (Scott, 2014) and the concept of entrepreneurial ecosystems (Isenberg, 2010; Spigel, 2017) have gained traction in the entrepreneurial academic world. These frameworks discuss that entrepreneurship is embedded within institutional logic which is shaped by cultural, educational and regulatory norms.

Scott (2014) has identified the following three institutional pillars that affect entrepreneurial behaviour: regulative, normative and cultural-cognitive. Universities act as key normative institutions by establishing routines, norms and values which are supportive of entrepreneurship. Also, Hofstede's (1980, 2001) cultural dimensions offer a critical lens to understand how national values shape individual behaviour. An example is that individualism may promote autonomy and self-employment, while uncertainty avoidance may reduce the willingness of students to embrace entrepreneurial risks (Liñán & Fernandez-Serrano, 2014; Guerrero et al., 2016).

When combined these theories provide a multi-level perspective in which we can examine the formation of student entrepreneurial intention. Individual attitudes and perceptions can be linked to institutional support structures and national culture.

### 2.2 Determinants of Entrepreneurial Intentions

#### Individual-Level Factors

Entrepreneurial intention refers to the conscious state of mind that precedes action and guides individuals to starting their new business (Bird, 1988). Linan and Chen (2009) developed a validated scale which measured Entrepreneurial Intention which was based upon the Theory of Planned Behaviour which was later adapted into international surveys such as GUESSS. Entrepreneurial intention is formed by a combination of personal characteristics (e.g. self-efficacy, risk tolerance), social influences and the perceived environment. This is supported by studies which consistently support this claim (Fayolle & Liñán, 2014; Farrukh et al., 2018).

### 2.3 University-Level Factors

Recent studies suggest that perceived university support (e.g. stimulating atmosphere, favourable climate and active encouragement) is linked to students' entrepreneurial intentions (Anjum et al., 2022; Nabi et al., 2017). These factors enhance the students' attitudes, perceived behavior controls and subjective norms which align with the mechanisms proposed in the Theory of Planned Behavior (Ajzen, 1991) and support institutional theory (Scott, 2014).

Entrepreneurship education is often recognized as having a positive impact on the fostering of entrepreneurial intention across students. For instance, a study by Zhao et al. (2005) found that entrepreneurship education increases students' entrepreneurial intention by the increase of their self-efficacy and the feasibility of starting a business. Although the effectiveness of such an education varies based on how it is structured, supported and perceived. Like Oosterbeek et al (2010) has found that this effect is null or even negative. This study claims that the exposure to realistic challenges which are found within entrepreneurship may deter students to start their own business rather than encourage them. This suggests that the design and delivery of entrepreneurship education (e.g. curriculum's content, availability of mentorship, level of institutional encouragement) play a vital role in shaping its outcomes.

The GUESSS 2023 report shows that students which have attended entrepreneurship courses or study specific entrepreneurship programs report a significantly higher level of intention to start their own business (Sieger et al., 2023). However, this effect is not uniform because its strength is moderated by field of study, gender and the regional context.

### 2.4 Culture as a Moderator

National culture is a significant influence on how students perceive and respond to entrepreneurial initiatives within universities. Cultural dimensions (Hofstede, 1980) can moderate the effectiveness of university level entrepreneurial support by shaping students' attitudes, perceived norms and behaviour control. For instance, in collectivist cultures the influence of peer and family may enhance or diminish the impact of the entrepreneurial support structures of universities. Recent cross-cultural research underscore that national culture can moderate the relationship between entrepreneurial university support and students' entrepreneurial intentions Ali et al. (2023).

The cultural dimensions of Hofstede provide a useful framework to understand how on a macro-level cultural values interact with individual and institutional factors (Hofstede, 1980; Liñán & Fernandez-Serrano, 2014). This study focuses on three key cultural dimensions from Hofstede's model: Individualism vs. Collectivism, Uncertainty Avoidance and Masculinity vs. Femininity.

In individualistic cultures, students are mostly associated with a stronger drive towards autonomy and self-employment. While

in collectivist cultures peer and family influences may be more important.

Uncertainty avoidance reflects a society's tolerance for ambiguity. In cultures with higher avoidance ambiguity may discourage entrepreneurial risk-taking, this can potentially weaken the impact of university encouragement on entrepreneurship.

Finally, masculine cultures prefer competitiveness and achievement which can result in higher entrepreneurial intention. On the other hand, feminine cultures may focus on security and cooperation which affect students' risk perceptions.

Previous studies have also shown that the cultural dimensions moderate the effect of institutional variables on entrepreneurial outcomes (Dheer et al., 2019), this will make them highly relevant for the conceptual framework for this study.

### 2.5 Conceptual Model and Hypotheses

To build upon the literature mentioned above, this study will propose the following conceptual model (Figure 1). Entrepreneurial intention is a function of university-level factors and cultural Moderation. University-level factors include entrepreneurial university support and entrepreneurial education. Cultural moderators include the national-level Hofstede dimensions: individualism, uncertainty avoidance and masculinity.

The conceptual model (Figure 1) explains how university support and entrepreneurship education can affect entrepreneurial intention. Cultural dimensions act as a moderator and the model reflect the multilevel structure of students within countries.

Based upon the reviewed literature, conceptual model and the theoretical integration of the institutional theory (Scott, 2014) and the cultural dimensions of Hofstede (1980) the following hypotheses are proposed. These reflect both the direct and moderating effects on student' entrepreneurial intentions.

It is believed that perceived support of universities enhances perceived behaviour control and subjective norms which results in strengthening entrepreneurial intentions (Franke & Lüthje, 2004; Fayolle & Liñán, 2014).

**H1:** *University-level Entrepreneurial Support and Entrepreneurial Education have a positive effect on students' entrepreneurial intention.*

In individualistic cultures entrepreneurial values are more impactful on university support, because they are closely aligned with personal autonomy and self-direction. (Liñán & Fernandez-Serrano, 2014; Hofstede, 2001).

**H2:** *Countries with higher individualism have a stronger positive relationship between entrepreneurial university support and entrepreneurial intention.*

Cultures with high uncertainty avoidance may decrease the effectiveness of entrepreneurship education because of greater risk aversion and the reluctance to engage in such entrepreneurial activities (Krijgsman, 2012).

**H3:** *The positive effect of entrepreneurship education on entrepreneurial is weaker in countries with higher uncertainty avoidance.*

In high masculinity countries, student may perceive university support as less central to their entrepreneurial journey. In contract to feminine cultures, where cooperation and social support are more valued. This may lead to university support as being more essential for developing confidence in entrepreneurship (Krijgsman, 2012, Liñán & Fernandez-Serrano, 2014).

**H4:** *The positive effect of university support on entrepreneurial intention is weaker in countries with a higher masculinity.*

## 3. METHODOLOGY

### 3.1 Research Design

This research adopts a quantitative, cross-sectional and comparative design. The aim is to explain how University-Level Factors explain entrepreneurial intention moderated by Country-Level Moderators. This study uses secondary data from the *Global University Entrepreneurial Spirit Students' Survey (GUESSS) 2023*, *scores on Hofstede's dimensions of national culture* (Hofstede Insights, 2015) and *World Bank. (2023). GDP per capita (current US$).* This data enables a robust multi-country analysis.

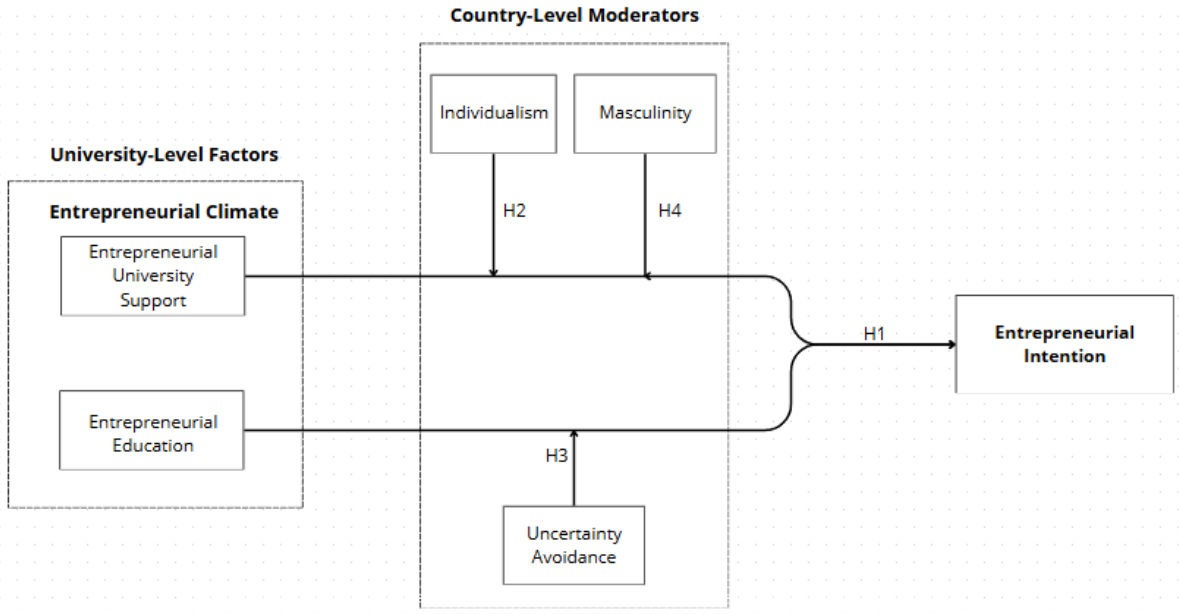


**Figure 1: Conceptual model of student entrepreneurial intention**

The research strategy is explanatory and focuses on hypothesis testing through the application of multivariate statistical techniques. Because of the hierarchical structure of the data, students nested within countries, a multi-level modelling approach is applied to account for variance within and between countries.

### 3.2 Data Source and Sample

The main dataset for this study is obtained from the GUESSS 2023 Global report, the survey is filled in by 226,000 students across 57 countries. The survey includes standardized questions on students' career intentions, exposure to entrepreneurship education, perceptions of university support and other background variables. GUESSS is considered as one of the most extensive and methodologically rigorous student entrepreneurship studies worldwide (Sieger et al., 2023).

For this research and its purpose, a subset of countries will be selected which is based on the following inclusion criteria. Firstly, a minimum of 500 complete responses per country to ensure sufficient reliability and viability. Secondly, the availability of Hofstede cultural scores for each country. Lastly complete responses on the key variables (entrepreneurial education, university support, entrepreneurial intention)

Next to the GUESSS 2023 data, the study also incorporates the national scores from Hofstede's six-dimensional model (Hofstede Insights, 2015). The scores are from the publicly available dimension data matrix provided by Hofstede insights; it offers standardized cultural metrics for cross-national comparisons. Integrating these scores enables the analysis of the moderation effects of culture on the relationship between university-level factors and entrepreneurial intention.

In addition, national economic indicators such as GDP per capita are sourced from the World Banks's "GDP per capita (current US$)" dataset (World Bank, 2023). This dataset provides comparable economic metrics which are standardized and internationally comparable. It enables the analysis to control for how economic development may influence student entrepreneurial intentions.

### 3.3 Operationalization of Variables

#### 3.3.1 Dependent Variable

Entrepreneurial Intention is measured through the GUESSS 2023 items Q2.1a and Q2.1b, which capture the students' intended career path directly after graduation and after five years. Respondents which select "7 – a founder (entrepreneur) working in my own business" on either item are classified as having entrepreneurial intention.

Following prior research (Liñán & Chen, 2009), the variable is coded as binary including the 5-year intention (Q2.1b). Where a value of 1 indicates that the student selected "founder" in either Q2.1a or Q2.1b, and 0 otherwise.

#### 3.3.2 Independent Variables

**University Support**

University support is measured using items Q3.1_1 to Q3.1_4 from the GUESSS 2023 dataset, which capture the students' perception of the university's entrepreneurial atmosphere, institutional climate, active encouragement and access to entrepreneurship-related guidance. Each item is rated on a 7-point Likert scale (1 = not at all, 7 = very much). A composite score is computed as the mean of these four items; the Cronbach's alpha will be used to assess internal consistency.

**Entrepreneurship Education**

Entrepreneurship education is measured using six items (Q3.3_1 to Q3.3_6) from the GUESSS 2023 dataset. This assesses students perceived learning outcomes from entrepreneurship-related courses and events. The items reflect understanding of entrepreneurial attitudes and actions, development of business and networking skills and the recognition of opportunities.

Each item is rated on a 7-point Likert scall, of which a composite score is calculated as the mean of these items. Cronbach's alpha is assessed using internal consistency.

#### 3.3.3 Moderator Variables (Country-Level)

**Hofstede's Cultural Dimensions**

The cultural variables in this study are operationalized through Hofstede's dimensions. Individualism vs Collectivism is measured such that a higher value equals to a more individualistic country. Uncertainty Avoidance is coded that a higher value equals to a lower tolerance for ambiguity. Lastly, Masculinity vs. Femininity is represented by a higher value equals to more emphasizes on achievement and competitiveness. Data for these dimensions will be matched with each country from the Hofstede Insights.

#### 3.3.4 Control Variables

**Student-Level Controls**:

Student-level control variables include gender (Q6.2), which is included as a binary variable where male = 1 and female = 0. Responses coded as "Other" or missing are excluded from the regression model. Age is derived from year of birth (Q6.1), by subtracting the response from 2025. Study level (Q1.2) is used to create dummy variables for each category (undergraduate graduate, PhD). Field of study (Q1.3) is represented by dummy variables. Specific dummies are created for Business/Management, as well as the second- and third-largest study fields, to allow for robustness checks. Parental entrepreneurship (Q6.4) is simplified into a binary variable, coded as 1 if either parent is self-employed or a business owner, and 0 otherwise.

**Country-Level Controls**:

GDP per capita (USD): This is to account for economic development, as less developed countries have higher entrepreneurial intention (Sieger et al., 2023).

### 3.4 Planned Analytical Strategy

To ensure the quality of the model, the analysis of the data of this study is divided in the following multi-stage procedure.

Firstly, we perform Descriptive Statistics, which produces an overview of the Summary of means, Standard Deviations and Frequencies. A Correlation of the key variables will be conducted. And a Country-wise distribution of Entrepreneurial Intention percentages will be produced.

Secondly, we perform multilevel modelling with Level 1: Student-level variables and Level 2: Country-level economic and cultural variables. In addition, **c**alculating the Intra-class correlation coefficient (ICC) to determine the proportion of variance between countries.

Thirdly we estimate cross-level interactions between main variables such as University Support x Individualism, Entrepreneurship Education x Uncertainty Avoidance and University Support x Masculinity.

Lastly, we perform robustness checks by testing the stability of the results through including GDP as a control variable, applying alternative coding of cultural dimensions, and checking model convergence and multicollinearity.

All analyses will be conducted inside R, with multilevel models estimated through lme4 or HLM packages.

# 4. RESULTS

## 4.1 Descriptive Statistic

Descriptive analyses were conducted on the final sample, which compromised of 224,936 students and 32 countries.

On average, 36.2% of student reported an intention to become a founder within 5 years. The mean University Support Score was 4.48 with a standard deviation of 1.64 and the mean of Entrepreneurship Education score was 4.19 with a standard deviation of 1.73, both measured on a 7-point Likert scale.

Internal consistency of the multi-item constructs was assessed using Cronbach's alpha. The University Support scale (Q3.1_1 to Q3.1_4) demonstrated reliability with a $\alpha = 0.91$. Similarly, the Entrepreneurship Education scale (Q3.3_1 to Q3.3_6) showed high internal consistency with $\alpha = 0.95$. Based on these results, composite scores were calculated by taking the mean of the respective items.

Results show that Entrepreneurial intention is higher among males (41,7%) compared to females (32.5%). Undergraduate student report higher entrepreneurial intention (37.3%) than graduate (31.4%) and PhD students (19.8%).

By field of study reveals substantial variation in entrepreneurial intention. Business & Economics report the highest entrepreneurial intention, with 46.3% which indicate an intention to found a business within 5 years. This group also scores highest on both perceived university support (M = 4.85) and entrepreneurship education (M = 4.73). Students in STEM fields (Science, Technology, Engineering, and Mathematics) show a lower entrepreneurial intention rate of 35.9%, with university support and entrepreneurship education scores of 4.46 and 4.1 respectively. Social Sciences & Humanities group reports the lowest entrepreneurial intention at 24.7%, along with lower levels of university support (M = 4.13) and entrepreneurship education (M = 3.65). These differences suggest that study plays a notable role in shaping students' entrepreneurial intention and the perception of entrepreneurial climate within the university.

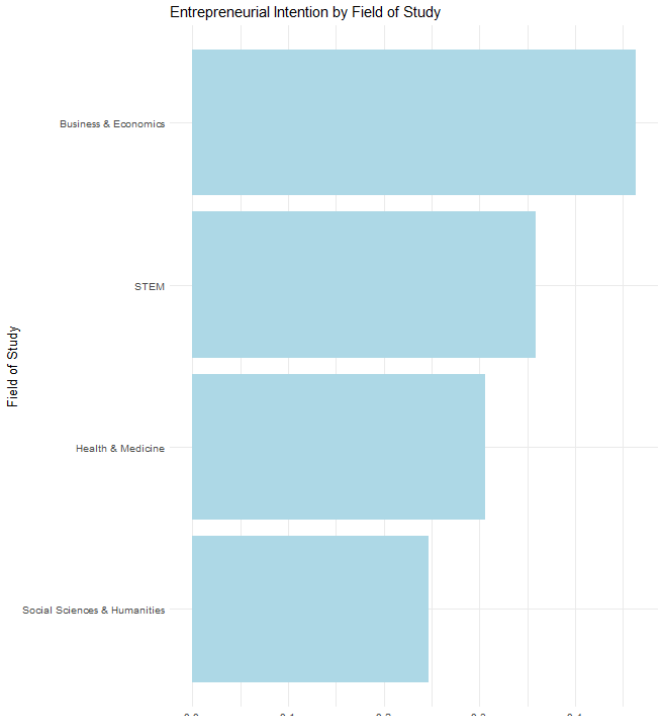


**Figure 3: Entrepreneurial Intention by Field of Study**

Entrepreneurial intention is notably higher among students with at least one self-employed parent, with 45.2%. Compared to Entrepreneurial Intention of 31.4% of those without entrepreneurial parents.

A huge factor for entrepreneurial intention is observed across countries (Figure 2). Students from emerging economies like Indonesia, Mexico and Colombia report a high level of Entrepreneurial Intention with score of respectively 75.6%, 62.6% and 58.1%. In contract, students in high-income Western countries such as Japan, Switzerland and Germany have Entrepreneurial intention scores of 10.4%, 22.4% and 24.6% (Table 3). These differences appear to reflect broader regional and economic patterns, suggesting that students of countries with a lower GDP may perceive entrepreneurship as more necessary or accessible. This shows that the inclusion of national economic indicators and cultural variables is vital for the multilevel analysis.

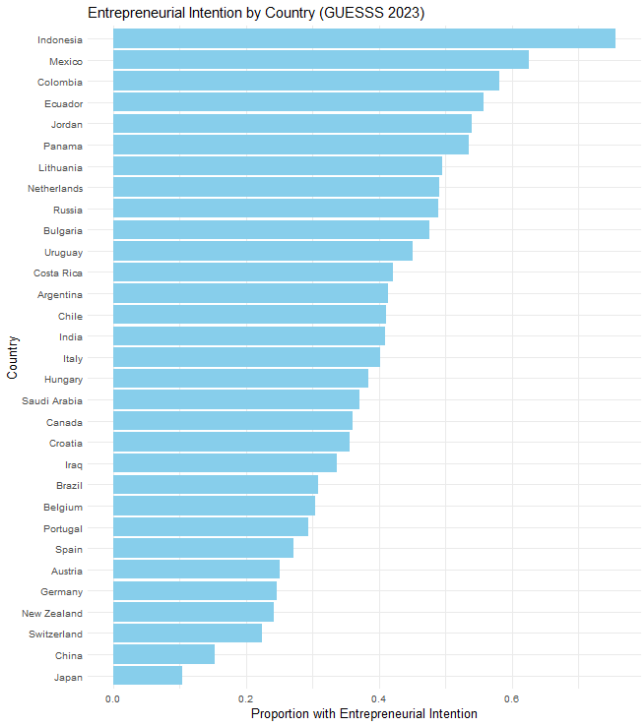


**Figure 2: Entrepreneurial Intention by Country (GUESSS 2023)**

This also shows in the significant correlation which is significant negative between GDP per capita and entrepreneurial intention ($r = –0.48$, $p = 0.006$), which suggests that students in lower-income economies are more likely to express entrepreneurial ambitions.

## 4.2 Multilevel Modelling

### 4.2.1 Intra-class correlation coefficient

A null model was estimated to examine the variance of entrepreneurial intention which is attributed to differences between countries. The intraclass correlation coefficient (ICC) was 0.114, indicates that approximately 11.4% of the total variance in the students' entrepreneurial intention can be explained by the country they belong to. This validates the use

of the multilevel modelling approach to account for the hierarchical structure of the data.

### 4.2.2 Level 1: Student-level Model

A multilevel regression model (Table 1) was estimated to examine the influence of university entrepreneurial climate, personal background and academic characteristics on students' entrepreneurial intention. The model includes fixed effect for individual-level predictors and random intercepts for country, which accounts for contextual variation.

**Table 1: Baseline Regression Table**

| | Entrepreneurial Intention | | |
|---|---|---|---|
| *Predictors* | *Odds Ratios* | *CI* | *p* |
| (Intercept) | 0.31 | 0.25 – 0.38 | **<0.001** |
| University Support | 0.99 | 0.98 – 1.00 | **0.007** |
| Entrepreneurship Education | 1.15 | 1.14 – 1.16 | **<0.001** |
| gender [Male] | 1.44 | 1.41 – 1.48 | **<0.001** |
| age | 1.00 | 1.00 – 1.00 | **0.010** |
| study level [PhD] | 0.55 | 0.51 – 0.59 | **<0.001** |
| study level [Undergraduate] | 1.16 | 1.12 – 1.20 | **<0.001** |
| field of study [Health & Medicine] | 0.70 | 0.68 – 0.73 | **<0.001** |
| field of study [Social Sciences & Humanities] | 0.54 | 0.52 – 0.56 | **<0.001** |
| field of study [STEM] | 0.66 | 0.64 – 0.68 | **<0.001** |
| Parental Entrepreneurship | 1.61 | 1.57 – 1.65 | **<0.001** |
| **Random Effects** | | | |
| $\sigma^2$ | 3.29 | | |
| $\tau_{00\ country}$ | 0.31 | | |
| ICC | 0.09 | | |
| $N_{\ country}$ | 31 | | |
| Observations | 163965 | | |
| Marginal $R^2$ / Conditional $R^2$ | 0.071 / 0.152 | | |

Entrepreneurship Education shows a strong positive effect with entrepreneurial intention (β = 0.142, $p < .001$). This confirms that students who perceive education as more entrepreneurship-oriented are significantly more likely to start their own business. Interestingly, University Support is negatively associated with entrepreneurial intention (β = –0.013, $p < .01$). This suggests that encouragement alone with the absence of practical education may not be sufficient to foster entrepreneurial aspirations.

Gender is also a significant factor: male student is more likely to intend to become entrepreneurs than females (β = 0.366, $p < .001$). Age has only a very small positive effect on entrepreneurial intention (β = 0.0003, $p < .01$), which can be neglected. On an academic level, PhD student is substantially less likely to start their own business compared to graduate students (β = –0.596, $p < .001$), while undergraduate students were more like to start their own business (β = 0.149, $p < .001$).

Field of study is also important, with students of Business & Economics as a reference category. Those in STEM ((β = –0.419), Health & Medicine (β = –0.354), and Social Sciences & Humanities (β = –0.617) show significantly lower entrepreneurial intentions, which is consistent with the descriptive findings.

Finally, student with at least one self-employed parent were significantly more likely to report entrepreneurial intention (β = 0.476, $p < .001$), this confirms the influence of family background. The variance of the random intercept for country ($\sigma^2 = 0.313$) remained substantial, this indicates that potentially country-level factors can explain the variation in entrepreneurial intention.

### 4.2.3 Level 2: Country-level economic and cultural variables

GDP per capita and Hofstede's six cultural dimensions were merged with the GUESSS student dataset to examine how national culture, and economic factors influence students' entrepreneurial intentions.

According to multilevel modelling (Schielzeth, 2010) all six cultural dimensions and GDP per capita were standardized to improve numerical stability, interpretability and comparability across predictors.

A correlation matrix (Figure 4) revealed correlation between several Hofstede dimensions and GDP per Capita. Notably, Power Distance and Individualism were strongly negative correlated (r = -0.64). Just as with Long-Term Orientation and Indulgence (r = -0.66), also GDP showed strong correlation with both Power Distance (r =-0.72) and Individualism (r = +0.58). Three separate multi logistic regression models were made accordingly to reduce collinearity and allow for clearer interpretation of individual predictors. All models include the same student-level control variables and random intercept for country.

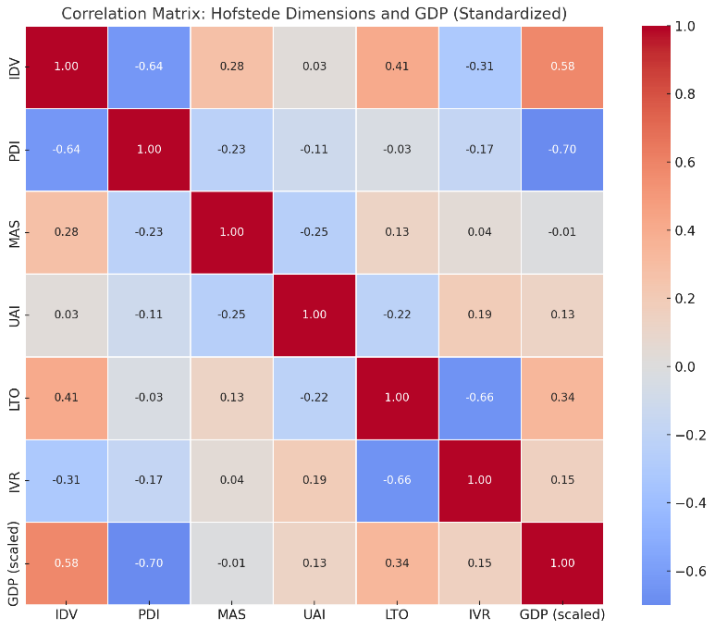


**Figure 4: Correlation Matrix: Hofstede Dimensions and GDP (Standardized)**

### 4.2.4 National Economic Context: GDP Model

The Model (Table 2) uses GDP per capita as the only country-level predictor which revealed to have a significant negative association with entrepreneurial intention (β = –0.206, $p$ = 0.007). This suggest that students within higher-income countries are less likely to express intention of starting their own business within 5 years, even when controlling for individual characteristics and university context. These findings are line with the descriptive results, which showed lower entrepreneurial intention for wealthy countries.

**Table 2: Multilevel Logistic Regression with GDP**

| | Entrepreneurial Intention | | |
|---|---|---|---|
| *Predictors* | *Odds Ratios* | *CI* | *p* |
| (Intercept) | 0.31 | 0.26 – 0.38 | **<0.001** |
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| field of study [STEM] | 0.66 | 0.64 – 0.68 | **<0.001** |
| Parental Entrepreneurship | 1.61 | 1.57 – 1.65 | **<0.001** |
| GDP (Standardized) | 0.81 | 0.70 – 0.95 | **0.007** |
| **Random Effects** | | | |
| $\sigma^2$ | 3.29 | | |
| $\tau_{00\ country}$ | 0.25 | | |
| ICC | 0.07 | | |
| $N_{\ country}$ | 31 | | |
| Observations | 163965 | | |
| Marginal $R^2$ / Conditional $R^2$ | 0.091 / 0.156 | | |

For the individual-level predictors they retained their direction and significance from previous models, with only negligible differences. The variance of the country-level random intercept ($\sigma^2$ = 0.329) was still substantial, which indicates that other national context continues to account for meaningful variation in entrepreneurial intention beyond economic development alone. This model suggest that economic necessity may play a role in driving entrepreneurial intention in lower-GDP countries.

#### 4.2.5 National Culture Context: Hofstede Dimensions

For the cultural analysis only countries with complete Hofstede data across all six dimensions were included. This resulted in a reduced sample of 153,800 students from 25 countries, this excluded countries such as Saudi Arabia, Ecuador and Jordan.

Due to high correlation between GDP and certain cultural dimensions, GDP per capita was excluded from these models to avoid collinearity. The six Hofstede dimensions were divided across two separate multilevel regression models () ., which each include again the student-level control variables and a random intercept for country.

Model A () includes Individualism (IDV), Uncertainty Avoidance (UAI) and Indulgence (IVR). None of these variables showed a significant relationship with entrepreneurial intention. IDV (β = –0.101, $p$ = 0.305), UAI (β = 0.022, $p$ = 0.829), and IVR (β = 0.021, $p$ = 0.824) were all statistically insignificant. With university context and academic background considered, these specific cultural traits do not directly explain variation of entrepreneurial intention across countries.

Model B () includes Power Distance (PDI), Masculinity (MAS) and Long-Term Orientation (LTO/WVS). In this model Masculinity was a significant and negatively associated with entrepreneurial intention (β = –0.178, $p$ = 0.028). This indicates that students in achievement-oriented cultures may be less likely to pursue their own business. Long-term Orientation was marginally significant (β = –0.145, $p$ = 0.054). It suggests that cultures with future planning discourage entrepreneurial action. Power Distance showed to not be a significant effect ((β = 0.086, $p$ = 0.209).

These models indicate that most cultural dimensions do not have a direct effect on entrepreneurial intention. While Masculinity and Long-Term Orientation show a relation, the other variables appear to have no direct relationship with Entrepreneurial Intention. These finding reinforce the dominant role of individual and institutional factors which directly shape entrepreneurial intention.

### 4.3 Moderating Analysis: Cross-Level Interactions

#### 4.3.1 University Support × Masculinity

To test whether national masculinity moderates the relationship between university support and entrepreneurial intention, a multilevel regression between the interaction of university support and Hofstede's masculinity was estimated (Table 6). The interaction term was significant (β = –0.025, p < 0.001). This indicates that in countries with higher levels of masculinity, the positive impact of university support on students' entrepreneurial intention is weaker. All student-level control variables including standardized GDP are incorporated in this model. Masculinity is also standardized, which makes the effect more interpretable and comparable between countries.

Figure 5 confirms this interaction. In low-MAS countries, university support is positively associated with increased entrepreneurial intention. In high-MAS countries, this effect is negative. This suggests that cultural masculinity decreases the marginal impact of university support on students' entrepreneurial intention.

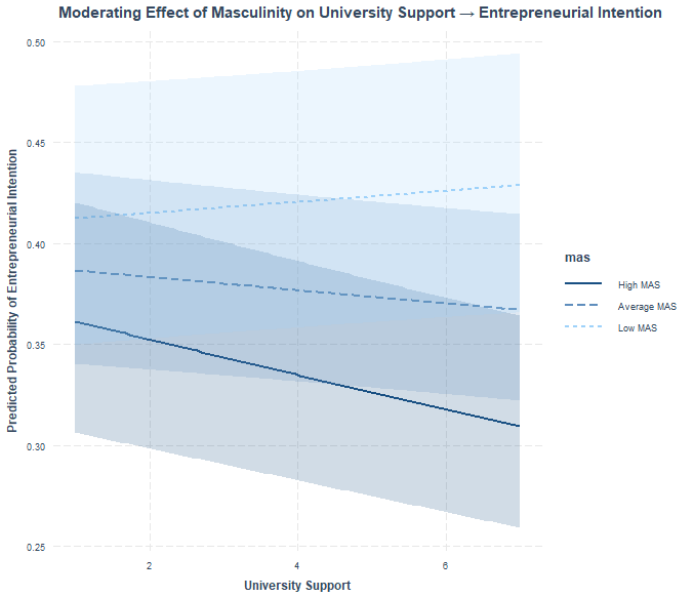


**Figure 5: Moderating Effect of Masculinity on University Support - Entrepreneurial Intention**

#### 4.3.2 University Support x Individualism

To test if individualism moderates the relationship between university support and entrepreneurial intention, a cross-level interaction term between university support and individualism was included in the multilevel logistic regression model (Table 6). The model controlled all student-level individual factors, with a random intercept for the country.

While GDP and individualism are moderately correlated (r ≈ 0.6), a robustness check confirmed that including or excluding GDP had no substantive impact on the interaction effect. Therefore, GDP was retained in the model to control cross-country economic differences.

As in the Student-Level Model, university support has a small but negative effect on entrepreneurial intention (β = –0.013, $p$ = 0.011). However, individualism itself was not significantly related to entrepreneurial intention (β = –0.094, $p$ = 0.339), which connects with the Country-level Model. The interaction term between University Support and Individualism is also not significant (β = –0.002, $p$ = 0.618). These finding suggest that the relationship between perceived university support and entrepreneurial intention does not vary significantly across collectivist and more individualistic (Table 6).

Figure 6 shows the interaction, where the lines are closely parallel for low, average and high individualism. This confirms that cultural individualism does not significantly affect university support on entrepreneurial intention.

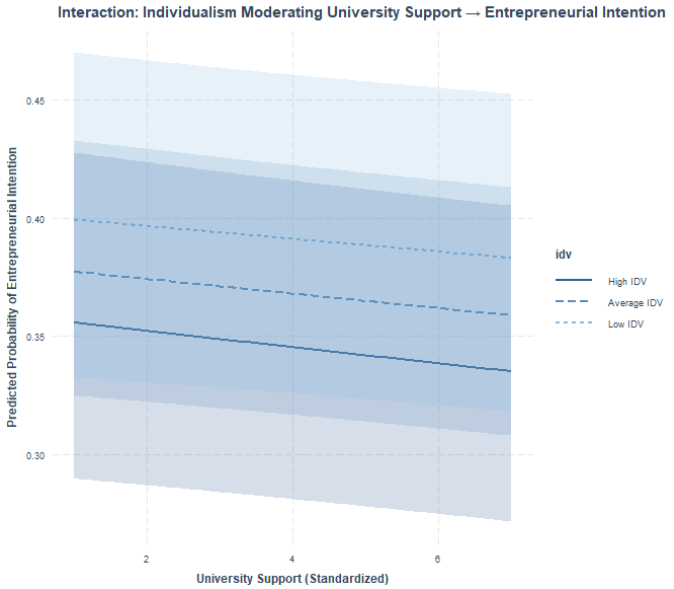


**Figure 6: Moderating effect of Individualism on the relation between University Support and Entrepreneurial Intention**

### 4.3.3 Entrepreneurship Education x Uncertainty Avoidance

For estimating whether national uncertainty avoidance moderates the relationship between entrepreneurship education and entrepreneurial intention a multilevel logistic regression model was tested (Table 6).

The interaction term between entrepreneurship education and Hofstede's uncertainty avoidance was statistically significant (β = 0.027, $p$ < .001), which shows that entrepreneurship education is stronger in countries with higher uncertainty avoidance.

All student-level control variables are included in this model, along with standardized GDP per capita. UAI was standardized to allow cross-country comparison. The main effect of UAI was not significant on Entrepreneurship Education (p = 0.283), which matches with our Country-Level Cultural model.

Figure 7 visualizes the interaction. In high-UAI countries, the predicted probability of entrepreneurial intention increases more steeply with higher levels of entrepreneurship education. In cultures which are less tolerant for risk, formal education on entrepreneurship may be more effective in motivate to intent to start their own business.

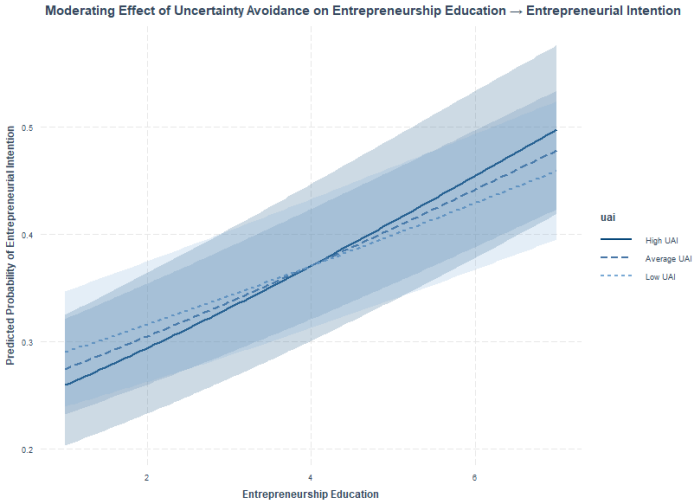


**Figure 7: Moderating Effect of Uncertainty Avoidance on Entrepreneurship Education and Entrepreneurial Intention**

## 4.4 Robustness Checks

### 4.4.1 GDP inclusion in Moderation Models

For testing the robustness of the moderating effect of masculinity on the relationship between university support and entrepreneurial intention there was a model estimated both with and without GDP per capita as a country-level control. In both interactions between university support and masculinity it remained significant and negative (β = –0.025, $p$ < 0.001). This indicated that the effect is robust to the inclusion of economic development, the coefficient size and direction were virtually identical across the models. The Model fit was also highly similar with AIC = 180852.8 (without GDP) and AIC = 180851.1 (with GDP) this suggest that GDP has minimal explanatory power in this context. This is an indication that moderating effect of masculine is not driven by cross-country economic differences but instead on a culture dynamic.

To test the robustness of the interaction between university support and individualism, a model with GDP and without GDP was estimated. The inclusion GDP made no meaningful difference to the interaction effect, which remained nonsignificant (β = –0.002, p = 0.615). Model fit also showed a negligible variation (AIC = 180902.4 without GDP vs. 180901.1 with GDP). This suggests the absence of a moderating effect of individualism on university support is not driven by difference in economic development, this further reinforces the null findings.

To test the robustness of the moderating effect of uncertainty avoidance on the relationship between entrepreneurship education and entrepreneurial intent, a model was made with GDP included and without GDP. The interaction term between education and UAI remained positive and highly significant in both models (β = 0.027, $p$ < 0.001), indicating a stable effect. Model fit was nearly identical (AIC = 180854.4 without GDP; AIC = 180852.4 with GDP), this suggest that the moderating role of uncertainty voidance is not influenced by economic development.

### 4.4.2 Alternative Coding of Hofstede Scores

To examine whether the effect of cultural values changes when not standardized, a categorical version (Table 4) was estimated. The scores were categorized between Low (0-33), Mid (33-66) and High (66-100) instead of using a continuous scale. Because of the small sample (25 countries), the categories were

dispersed unevenly. This resulted in no low masculinity category. In addition, the interaction terms for mid masculinity ($\beta = 0.027$, $p = 0.090$) and high masculinity ($\beta = –0.015$, $p = 0.392$) were not statistically significant. The patterns were still directionally consistent with previous findings, and the effect of university support still appears to be weaker in masculine cultures. Standardizing the cultures scores thus makes a significant difference compared to categorizing the Hofstede Dimensions. Still standardizing is the best option, as divided categories within a small sample can cause an uneven distribution and less interpretable results as seen with Masculinity.

#### 4.4.3 Model Convergence and Scaling

Several models have indicated convergence warnings related to high eigenvalue ratios. This means the model struggles to distinguish the unique contribution of variables due to scaling or multicollinearity, which can lead to numerical instability. This is a known issue with multilevel logistic models with large datasets, but all models converged with acceptable gradient norms (max $|grad| < 0.015$). Also, the direction, magnitude and significance of coefficient remained stable across all the models. Standardizing country-level variables (including GDP and Hofstede dimensions) mitigated issues of scale imbalance and improved the interpretability of the models without altering the conclusion substantially.

## 5. DISCUSSION, IMPLICATIONS, AND CONCLUSION

### 5.1 Discussion

This study examined how the university support and entrepreneurship education influence the students' entrepreneurial intentions, and how these relationships are shaped by national cultural dimensions. While entrepreneurship education shows a strong and consistent positive effect on entrepreneurial intention, university support has a small negative relationship. This is aligned with recent research that suggests perceived support structures may not be sufficient. Unless these are complemented by hands-on, skill-building education (VanderLinde & Mera, 2024). H1 is therefor partially accepted, as shown in Section 4.2.2.

Contrary to expectations, individualism did not moderate the relationship between university support and entrepreneurial intention. The null findings suggest that students' perception of support operate similarly in both collectivist and individualist cultures. H2 is therefor rejection as estimated in Section 4.3.2.

The moderation analysis provides a nuanced insight. Especially, the positive effect of entrepreneurship education is stronger in countries with a higher uncertainty avoidance score. This suggest that cultures that are less tolerant of ambiguity, structured educational programs may offer a sense of security and legitimacy which encourage entrepreneurial ambitions. This is contrary to our expectations mentioned in H3, therefor H3 is rejection as seen in Section 4.3.3

What is notable is that cultural dimensions interact differently with various institutional factors. While entrepreneurship education benefits from alignment with attitudes towards uncertainty. University support appears to be culturally contingent, especially in relation to masculinity. H4 is therefor accepted, as seen in Section 4.3.1. These insights show the importance and need for an entrepreneurship climate that is tailored to cultural values and norms.

In this study it is reinforced that culture is a moderating factor regarding entrepreneurial intention among students. The cross-national perspective which is provided by the multilevel framework enables a better understanding how universities can contribute to entrepreneurship ecosystems worldwide.

### 5.2 Theoretical and Practical implications

These outcomes contribute to a more nuanced understanding of the cultural dependencies underlying student entrepreneurship. It implies that policy makers and universities should not adopt a one-size-fit-all approach regarding university support and entrepreneurial education. Instead, it should be tailored to fit the prevailing cultural attitudes.

Such as with more masculine societies to increase entrepreneurship intention it may need to deviate from traditional university support mechanisms. Instead focusing on competitiveness or autonomy.

### 5.3 Future Research Directions

Research in the future would be advice to expand on this study by exploring other alternatives to the entrepreneurial intention, like with longitudinal outcomes. It should also involve frameworks beyond Hofstede's model. It would be valuable to investigate how informal institutional factors, such as peer influence, local entrepreneurial role models or perceived socials interact with entrepreneurship education and support structures. Lastly, qualitative insights could help unravel why certain cultural traits dampen the effect of university support, such as masculinity, offering guidance for universities across the globe.

### 5.4 Conclusion

Together the findings answer the research question: *How does national culture moderate the relationship between the university entrepreneurial climate and students' entrepreneurial intentions?*

The results suggest that while university support and entrepreneurship education both shape entrepreneurial intention, their effectiveness is not uniform across different culture values. Masculinity and uncertainty avoidance emerge as relevant cultural moderators. Amplifying or dampening the impact of institutional inputs, whereas individualism does not significantly alter the effects.

## 6. LIMITATIONS

This study shows new insights into the ways that national culture affects the relationship between university support, entrepreneurship education, and student entrepreneurial intention. However, it is important to acknowledge the limitations of this research. First, cross-sectional data makes it hard to demonstrate causal relationships because all variables are evaluated at a single point in time. Secondly, entrepreneurial intention was measured using a simplified binary indicator which may not fully capture the complexity of entrepreneurial motivations of students. Third, national culture was modelled using Hofstede's country-level dimensions, which assumes cultural homogeneity within a country and ignores individual-level cultural variation. Fourth, while GDP per capita was included in robustness checks, other contextual influences such as national entrepreneurship ecosystems, education policies or economic opportunity structures could not be controlled for.

Fifth, several multilevel models generated convergence warning due to high eigenvalue ratios, which may indicate multicollinearity or an imbalance in the country-level variables. Although all models converged with acceptable gradients and stable coefficient estimates, the signals limit the interpretability. Sixth, while individual characteristics like gender, field of study and education level were included as control variables, a subgroup analyses were not conducted. Future research could possibly explore whether these factors interact with support mechanisms in more nuanced ways. Finally, GUESSS respondents may be more interested in entrepreneurship than the general student population, thus there may be a potential selection bias.

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# 8. APPENDIX

**Table 3: Country Level Summary Table**

| *Country* | *Entrepreneurial Intention* | *University Support* | *Entrepreneurship Education* | *GDP per Capita (USD)* | *Respondents* |
|---|---|---|---|---|---|
| *Indonesia* | 0.756 | 5.88 | 5.9 | 4876 | 1665 |
| *Mexico* | 0.626 | 5.89 | 5.46 | 13790 | 3082 |
| *Colombia* | 0.581 | 5.39 | 5.19 | 6947 | 13041 |
| *Ecuador* | 0.557 | 5.51 | 5.36 | 6610 | 5215 |
| *Jordan* | 0.539 | 4.31 | 4.14 | 4456 | 1765 |
| *Panama* | 0.535 | 5.01 | 4.93 | 18686 | 1468 |
| *Lithuania* | 0.495 | 4.71 | 4.19 | 27786 | 2448 |
| *Netherlands* | 0.491 | 4.82 | 4.49 | 64572 | 811 |
| *Russia* | 0.489 | 5.13 | 4.23 | 13817 | 4668 |
| *Bulgaria* | 0.475 | 4.59 | 4.35 | 15886 | 1742 |
| *Uruguay* | 0.451 | 5.22 | 4.5 | 22798 | 1693 |
| *Costa Rica* | 0.421 | 5.07 | 4.94 | 16942 | 2603 |
| *Argentina* | 0.413 | 4.53 | 4.2 | 14187 | 2462 |
| *Chile* | 0.411 | 4.99 | 4.63 | 17068 | 6164 |
| *India* | 0.409 | 4.7 | 4.63 | 2481 | 13896 |
| *Italy* | 0.401 | 4.07 | 3.95 | 39003 | 4374 |
| *Hungary* | 0.384 | 4.04 | 3.96 | 22142 | 14720 |
| *Saudi Arabia* | 0.371 | 5.05 | 4.73 | 32094 | 3746 |
| *Canada* | 0.36 | 4.63 | 4.16 | 53431 | 4687 |
| *Croatia* | 0.356 | 4.29 | 3.85 | 21865 | 1822 |
| *Iraq* | 0.337 | 3.83 | 3.93 | 5565 | 1461 |
| *Brazil* | 0.309 | 4.57 | 4.41 | 10295 | 7447 |
| *Belgium* | 0.304 | 4.22 | 3.62 | 54701 | 5422 |
| *Portugal* | 0.293 | 4.41 | 3.89 | 27331 | 1055 |
| *Spain* | 0.272 | 4.19 | 3.82 | 33509 | 76889 |
| *Austria* | 0.25 | 3.64 | 3.06 | 56034 | 2277 |
| *Germany* | 0.246 | 3.85 | 3.2 | 54343 | 2087 |
| *New Zealand* | 0.241 | 4.38 | 3.64 | 48281 | 1671 |
| *Switzerland* | 0.224 | 4.29 | 3.74 | 99565 | 5145 |
| *China* | 0.153 | 4.14 | 4.04 | 12614 | 6123 |
| *Japan* | 0.104 | 3.83 | 3.77 | 33767 | 1837 |

**Table 4: Multilevel Logistic Regression with Categorical Masculinity — University Support**

| | **Entrepreneurial Intention** | | |
|---|---|---|---|
| *Predictors* | *Odds Ratios* | *CI* | *p* |
| (Intercept) | 0.38 | 0.22 – 0.63 | **<0.001** |
| Univ Support | 0.97 | 0.94 – 1.00 | **0.047** |
| mas cat [Mid] | 0.84 | 0.46 – 1.52 | **0.555** |
| mas cat [High] | 0.66 | 0.35 – 1.24 | **0.193** |
| Entre Edu | 1.16 | 1.15 – 1.17 | **<0.001** |
| gender [Male] | 1.46 | 1.43 – 1.50 | **<0.001** |
| age | 1.00 | 1.00 – 1.00 | **0.008** |
| study level [PhD] | 0.55 | 0.51 – 0.59 | **<0.001** |

| | | | |
|---|---|---|---|
| study level [Undergraduate] | 1.16 | 1.13 – 1.20 | **<0.001** |
| field of study [Health & Medicine] | 0.71 | 0.68 – 0.73 | **<0.001** |
| field of study [Social Sciences & Humanities] | 0.54 | 0.52 – 0.56 | **<0.001** |
| field of study [STEM] | 0.65 | 0.63 – 0.67 | **<0.001** |
| has parent business owner | 1.63 | 1.59 – 1.66 | **<0.001** |
| GDP | 0.87 | 0.73 – 1.04 | **0.125** |
| univ support scale * mas cat [Mid] | 1.03 | 1.00 – 1.06 | **0.090** |
| univ support scale * mas cat [High] | 0.99 | 0.95 – 1.02 | **0.392** |
| **Random Effects** | | | |
| $\sigma^2$ | 3.29 | | |
| $\tau_{00\ country}$ | 0.26 | | |
| ICC | 0.07 | | |
| $N_{country}$ | 25 | | |
| Observations | 153800 | | |
| Marginal $R^2$ / Conditional $R^2$ | 0.095 / 0.160 | | |

**Table 5: Multilevel Logistic Regression - National Culture Models (Hofstede Dimensions)**

| | **Hofstede Model A (IDV, UAI, IVR)** | | | **Hofstede Model B (PDI, MAS, LTO)** | | |
|---|---|---|---|---|---|---|
| *Predictors* | *Odds Ratios* | *CI* | *p* | *Odds Ratios* | *CI* | *p* |
| (Intercept) | 0.28 | 0.22 – 0.36 | **<0.001** | 0.30 | 0.25 – 0.37 | **<0.001** |
| univ support scale | 0.99 | 0.98 – 1.00 | **0.010** | 0.99 | 0.98 – 1.00 | **0.010** |
| entre edu scale | 1.16 | 1.15 – 1.17 | **<0.001** | 1.16 | 1.15 – 1.17 | **<0.001** |
| gender [Male] | 1.46 | 1.43 – 1.50 | **<0.001** | 1.46 | 1.43 – 1.50 | **<0.001** |
| age | 1.00 | 1.00 – 1.00 | **0.008** | 1.00 | 1.00 – 1.00 | **0.008** |
| study level [PhD] | 0.55 | 0.51 – 0.59 | **<0.001** | 0.55 | 0.51 – 0.59 | **<0.001** |
| study level [Undergraduate] | 1.16 | 1.13 – 1.20 | **<0.001** | 1.16 | 1.13 – 1.20 | **<0.001** |
| field of study [Health & Medicine] | 0.71 | 0.68 – 0.74 | **<0.001** | 0.71 | 0.68 – 0.74 | **<0.001** |
| field of study [Social Sciences & Humanities] | 0.54 | 0.52 – 0.56 | **<0.001** | 0.54 | 0.52 – 0.56 | **<0.001** |
| field of study [STEM] | 0.65 | 0.63 – 0.67 | **<0.001** | 0.65 | 0.63 – 0.67 | **<0.001** |
| has parent owner | 1.63 | 1.59 – 1.66 | **<0.001** | 1.63 | 1.59 – 1.66 | **<0.001** |
| idv | 0.90 | 0.74 – 1.10 | 0.305 | | | |
| uai | 1.02 | 0.84 – 1.25 | 0.829 | | | |
| ivr | 1.02 | 0.85 – 1.23 | 0.824 | | | |
| pdi | | | | 1.09 | 0.95 – 1.25 | 0.209 |
| mas | | | | 0.84 | 0.71 – 0.98 | **0.028** |
| ltowvs | | | | 0.86 | 0.75 – 1.00 | 0.054 |
| **Random Effects** | | | | | | |
| $\sigma^2$ | 3.29 | | | 3.29 | | |
| $\tau_{00}$ | $0.33_{country}$ | | | $0.23_{country}$ | | |
| ICC | 0.09 | | | 0.06 | | |
| N | $25_{country}$ | | | $25_{country}$ | | |
| Observations | 153800 | | | 153800 | | |
| Marginal $R^2$ / Conditional $R^2$ | 0.080 / 0.164 | | | 0.098 / 0.156 | | |

**Table 6: Multilevel Logistic Regression – Moderation Effects of National Culture on Entrepreneurial Intention**

| | H2: UnivSupport × Masculinity | | | H3: EntreEdu × UAI | | | H4: UnivSupport × Individualism | | |
|---|---|---|---|---|---|---|---|---|---|
| *Predictors* | *Odds Ratios* | *CI* | *p* | *Odds Ratios* | *CI* | *p* | *Odds Ratios* | *CI* | *p* |
| (Intercept) | 0.29 | 0.24 – 0.36 | **<0.001** | 0.29 | 0.23 – 0.37 | **<0.001** | 0.29 | 0.23 – 0.36 | **<0.001** |
| univ support scale | 0.99 | 0.98 – 1.00 | **0.004** | 0.99 | 0.98 – 1.00 | **0.014** | 0.99 | 0.98 – 1.00 | **0.011** |
| mas | 0.92 | 0.78 – 1.08 | 0.319 | | | | | | |
| entre edu scale | 1.16 | 1.15 – 1.17 | **<0.001** | 1.16 | 1.15 – 1.17 | **<0.001** | 1.16 | 1.15 – 1.17 | **<0.001** |
| gender [Male] | 1.46 | 1.43 – 1.50 | **<0.001** | 1.46 | 1.43 – 1.50 | **<0.001** | 1.46 | 1.43 – 1.50 | **<0.001** |
| age | 1.00 | 1.00 – 1.00 | **0.007** | 1.00 | 1.00 – 1.00 | **0.007** | 1.00 | 1.00 – 1.00 | **0.008** |
| study level [PhD] | 0.55 | 0.51 – 0.59 | **<0.001** | 0.55 | 0.51 – 0.59 | **<0.001** | 0.55 | 0.51 – 0.59 | **<0.001** |
| study level [Undergraduate] | 1.17 | 1.13 – 1.20 | **<0.001** | 1.16 | 1.13 – 1.20 | **<0.001** | 1.16 | 1.13 – 1.20 | **<0.001** |
| field of study [Health & Medicine] | 0.71 | 0.68 – 0.73 | **<0.001** | 0.71 | 0.68 – 0.74 | **<0.001** | 0.71 | 0.68 – 0.74 | **<0.001** |
| field of study [Social Sciences & Humanities] | 0.54 | 0.52 – 0.56 | **<0.001** | 0.54 | 0.52 – 0.56 | **<0.001** | 0.54 | 0.52 – 0.56 | **<0.001** |
| field of study [STEM] | 0.65 | 0.63 – 0.67 | **<0.001** | 0.65 | 0.63 – 0.67 | **<0.001** | 0.65 | 0.63 – 0.67 | **<0.001** |
| has parent owner | 1.62 | 1.59 – 1.66 | **<0.001** | 1.63 | 1.59 – 1.66 | **<0.001** | 1.63 | 1.59 – 1.66 | **<0.001** |
| gdp scaled | 0.85 | 0.72 – 1.00 | **0.044** | 0.83 | 0.69 – 0.99 | **0.035** | 0.79 | 0.62 – 1.01 | 0.063 |
| univ support scale × mas | 0.97 | 0.97 – 0.98 | **<0.001** | | | | | | |
| uai | | | | 0.90 | 0.74 – 1.09 | 0.283 | | | |
| entre edu scale × uai | | | | 1.03 | 1.02 – 1.03 | **<0.001** | | | |
| idv | | | | | | | 1.08 | 0.84 – 1.39 | 0.569 |
| univ support scale × idv | | | | | | | 1.00 | 0.99 – 1.01 | 0.615 |
| **Random Effects** | | | | | | | | | |
| $\sigma^2$ | 3.29 | | | 3.29 | | | 3.29 | | |
| $\tau_{00}$ | $0.24_{country}$ | | | $0.30_{country}$ | | | $0.29_{country}$ | | |
| ICC | 0.07 | | | 0.08 | | | 0.08 | | |
| N | $25_{country}$ | | | $25_{country}$ | | | $25_{country}$ | | |
| Observations | 153800 | | | 153800 | | | 153800 | | |