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Keeping it informal? The role of national governance and culture in informal entrepreneurship enablement

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Abstract

Purpose – As economies transition towards increasingly formalised, market-driven and capitalistic structures, this study examines why entrepreneurs choose to initiate their businesses informally. Drawing on new institutional economics and the external enablement framework, this research investigates how the interaction between formal governance structures and informal cultural values shapes informal entrepreneurial activity.
Design/methodology/approach – The analysis relies on panel data from 36 countries over 12 years, integrating measures from the Global Entrepreneurship Monitor Adult Population Survey (GEM APS), World Governance Indicators, GLOBE and World Development Indicators. Random-effects generalised least squares (GLS) panel regressions are employed to examine the curvilinear relationship between national governance and informal entrepreneurship, as well as the moderating effects of cultural values in this relationship.
Findings – This study provides evidence of a U-shaped relationship between national governance and informal entrepreneurship. Initially, low levels of governance reduce the costs associated with starting informal businesses, making such ventures more appealing. As governance improves, the likelihood of establishing informal businesses decreases until a regulatory effectiveness peak is reached. Beyond this point, however, further increases in governance levels inadvertently promote informal entrepreneurship through a legitimation mechanism that empowers concealed entrepreneurial action. Further, the results demonstrate that the agency-intensity of this legitimation mechanism varies according to cultural values.
Originality/value – This study contributes an empirical account of how formal and informal institutions jointly shape informal entrepreneurship enablement, demonstrating a curvilinear governance effect moderated by national cultural values.

Keywords Informal entrepreneurship, National governance, Culture, U-shape, External enablers
Paper type Research article

1. Introduction

Since the Industrial Revolution, structural shifts have transformed global economies, fostering increasingly formalised, institutionally driven capitalist markets (Witt and Jackson, 2016; Jackson and Deeg, 2019; Klein *et al.*, 2022). This evolution has propelled entrepreneurial activity towards formalisation (Williams, 2018). Nonetheless, informal entrepreneurship (IE) remains prevalent, encompassing activities that, while not fully compliant with national legal frameworks, are socially accepted and perceived as legitimate (Salvi *et al.*, 2023). IE can yield positive societal impacts, especially for vulnerable communities, such as refugees (Yetkin and Tunçalp, 2024) and indigenous groups (Solorzano Bajaña, 2025), yet noncompliance with

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legal registration limits fiscal contributions and broader economic integration (Shahid *et al.*, 2024). Entrepreneurs thus face a consequential decision about whether to formalise their ventures or operate within the informal economy.

National governance refers to the "traditions and institutions by which authority in a country is exercised" (Kaufmann and Kraay, 2024, p. 4), reflecting the government's capacity to formulate and implement formal rules that facilitate market functionality. Previous empirical studies have established a negative linear relationship between formal institutions and IE rates (e.g. Dau and Cuervo-Cazurra, 2014; Omri, 2020; Thai and Turkina, 2014). As national governance quality improves, stricter regulations and enhanced enforcement mechanisms often dissuade entrepreneurs from pursuing informal business operations from the outset (Wei *et al.*, 2023). Conversely, some studies have indicated that IE can thrive even in high-governance contexts (e.g. Ault and Spicer, 2022; Williams, 2015), suggesting that excessive state intervention may create conditions conducive to IE (Williams and Martinez, 2014). These competing findings resist a linear framing, pointing instead to governance playing different roles at distinct levels of intensity.

Moreover, formal institutions do not operate in isolation; they interact with informal institutions (North, 1990). Consequently, informal entrepreneurs must navigate both regulatory requirements and socially embedded norms (Mallon and Fainshmidt, 2025; Thai and Turkina, 2014). Helmke and Levitsky (2004) theorise that formal rules and informal norms relate through patterns of complementarity and substitution: informal institutions reinforce formal prescriptions when their goals converge or compensate for institutional voids when formal rules are weak or absent. These dynamics shape entrepreneurs' intentions to formalise their ventures (Shahid *et al.*, 2022), the degree to which ventures become formalised (Williams and Shahid, 2016) and entrepreneurs' tax morale (Mickiewicz *et al.*, 2019). Further, Webb *et al.* (2009, 2020) conceptualise IE as occurring in the space between formal institutional boundaries, which define regulative legitimacy, and informal institutional boundaries, which define normative legitimacy. The size and permeability of this space depend on how formal and informal institutions shift relative to one another (Igudia *et al.*, 2022), with informal activity emerging when formal government prescriptions clash with societal norms.

This body of work confirms that formal and informal institutions jointly shape the terrain of informal entrepreneurial activity. What remains empirically puzzling, however, is how this interaction operates when national governance itself varies in intensity. Further, the same governance environment can both enable and constrain IE depending on the cultural values through which it is interpreted, as these define what is perceived as legitimate, i.e. what "should be right" in a given society beyond the prescriptions of formal law (Feige, 1990; Suchman, 1995). As measures of what a society deems important and desirable rather than what is formally enforced (House *et al.*, 2004; Stephan and Uhlaner, 2010), cultural values are therefore well suited to capture how informal institutions regulate the enabling conditions for IE across national contexts. Drawing on new institutional economics (North, 1990; Helmke and Levitsky, 2004) and the external enablement framework (Davidsson *et al.*, 2020; Kimjeon and Davidsson, 2022; Briel *et al.*, 2025), this study addresses this puzzle by pursuing two research questions: *Is there a curvilinear relationship between national governance and IE? What role does culture play in this relationship?*

To answer these questions, this research employs a random-effects GLS panel estimator to analyse a dataset comprising 36 countries over a 12-year period (2006–2017). The results provide robust support for a U-shaped relationship between national governance and IE. Further, they demonstrate that cultural values moderate this relationship, contributing to the literature in three significant ways. First, this study advances previous conversations at the juncture of IE (Webb *et al.*, 2009, 2020; Salvi *et al.*, 2023), and new institutional economics (North, 1990; Helmke and Levitsky, 2004), by moving from a linear (e.g. Dau and Cuervo-Cazurra, 2014; Thai and Turkina, 2014; Williams and Martinez, 2014) towards a curvilinear account of the relationship between national governance and IE. While increasing level of national governance initially discourages IE, the empirical results demonstrate that, after reaching a *regulatory effectiveness peak*, national governance becomes an external enabler of IE. Second, this research contributes to the external enablement framework by providing an empirical account of culture as an agency-intensity regulator of this enabling mechanism (Davidsson *et al.*, 2020, 2022; Kimjeon and Davidsson, 2022). Third, this study advances previous discourse at the intersection of institutional structures and ethical decision-making in the entrepreneurial domain (Uriarte *et al.*, 2025; Williams and Shahid, 2016).

The remainder of this article is structured as follows. We first develop the theoretical framework and hypotheses, drawing on new institutional economics and the external enablement framework to theorise the curvilinear relationship between national governance and IE and the moderating role of cultural values. We then describe the data, sample and analytical approach, followed by a presentation of the empirical results. Subsequently, we discuss the findings, outline the theoretical contributions, and derive implications for policy and practice. The article concludes by acknowledging the study's limitations and suggesting directions for future research.

2. Theory and hypotheses

To examine how national governance and cultural values shape IE across societies, this study draws on new institutional economics (North, 1990) and the external enablement framework (Davidsson *et al.*, 2020; Kimjeon and Davidsson, 2022; Briel *et al.*, 2025). New institutional economics conceptualises institutions as "the rules of the game in a society" (North, 1990, p. 3), which structure incentives and constraints for economic actors, including entrepreneurs. These rules comprise both formal institutions, such as laws, regulations and governance structures, and informal institutions consisting of socially shared norms, values and cultural practices (Helmke and Levitsky, 2004). Importantly, formal and informal institutions do not operate independently but interact to shape the broader institutional context in which entrepreneurial activity occurs (Webb *et al.*, 2020). IE emerges in the space between these two institutional domains (Webb *et al.*, 2009), where national governance constitutes the formal institutional environment (Kaufmann and Kraay, 2024) and cultural values constitute the informal institutional environment that shapes shared beliefs about legitimacy and acceptable economic behaviour within a society (House *et al.*, 2004). Together, these institutional domains shape both the incentive structure and the legitimacy conditions under which IE emerges, and it is their interaction that this study investigates.

The external enablement framework (Davidsson *et al.*, 2020; Kimjeon and Davidsson, 2022; Briel *et al.*, 2025) provides a complementary mechanism-based perspective for understanding how these institutional domains shape entrepreneurial activity. External enablers are defined as "distinct, external circumstance[s]" that have "the potential of playing an essential role in eliciting and/or enabling a variety of entrepreneurial endeavours" (Davidsson, 2015, p. 683). The characteristics of external enablers encompass variations in scope as well as the onset of environmental changes, which can be either predictable or sudden (Kimjeon and Davidsson, 2022). By drawing on this perspective, national governance can thus be conceptualised as an external enabler of IE, as it represents a distinct external circumstance that triggers such entrepreneurial activity (Davidsson, 2015). When the intensity of national governance varies across countries, it alters the opportunity structure within which informal entrepreneurial activities emerge and evolve (Omri, 2020). Cultural values in turn regulate this enabling mechanism by complementing or substituting for national governance (Helmke and Levitsky, 2004). Drawing on this framework, the following sections theorise that national governance acts as an external enabler of IE through a legitimation mechanism whose agency-intensity is regulated by cultural values.

2.1 The enabling and disabling role of national governance on IE

Strong rule of law and effective regulations create regulated business environments, imposing significant sanctions on non-compliance, such as failing to register businesses or meet tax obligations (Dau and Cuervo-Cazurra, 2014). Conversely, low levels of national governance diminish the costs associated with IE creating opportunities for individuals to start informal ventures (Webb *et al.*, 2020). For example, where administrative capacity is limited, enforcement tends to be discretionary and concentrated on large and visible firms, allowing smaller ventures to operate below the threshold of inspection, while self-interested officials may accept informal payments in place of applying sanctions. Even where authorities could in principle penalise non-compliance, they frequently refrain from doing so for social, political and economic reasons, so that enforcement becomes negotiable rather than automatic (Biru *et al.*, 2025). The expected cost of operating informally therefore falls well below its formal level, and registration and tax obligations become, in practice, optional for many small ventures.

While it is clear that high governance can disincentivise informal practices due to negative externalities, such as tax loss (Webb *et al.*, 2013), there are potential benefits associated with increasing national governance levels (Williams and Martinez, 2014). These benefits become evident after national governance reaches its regulatory effectiveness peak, as illustrated in Figure 1.

Beyond this peak, further increases in national governance may result in economic conditions that are favourable for IE. Here, an increasingly complex regulatory system can create barriers that are challenging for formal entrepreneurs to navigate. As a response, IE may be perceived as a legitimate option to circumvent burdensome regulations (Williams and Martinez, 2014). For instance, consider a country where government regulations on business licensing are so extensive and costly that many aspiring entrepreneurs find it nearly impossible to start a formal enterprise. As a result, some individuals may choose to bypass formal registration altogether, instead opening unlicensed food stands or offering repair services

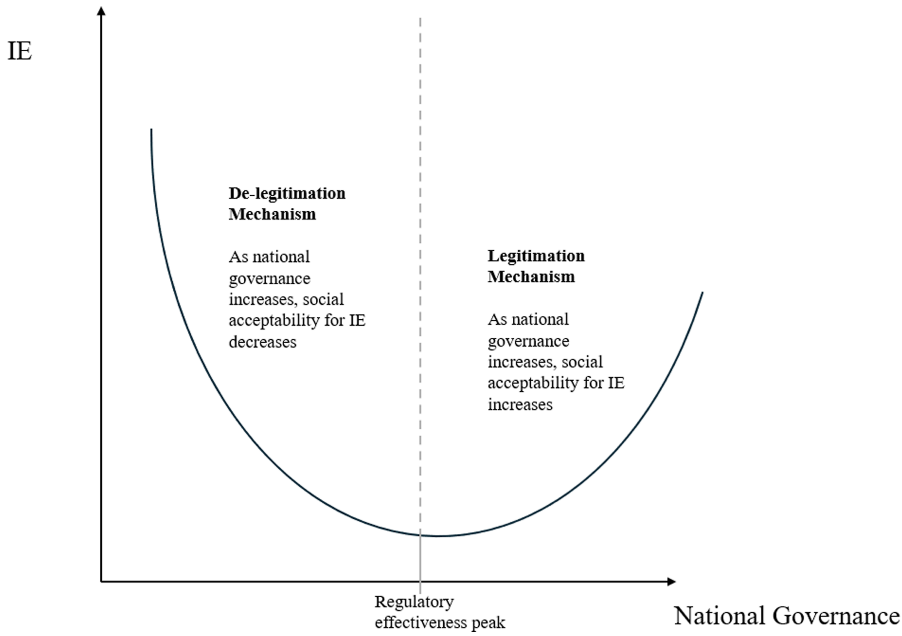

Figure 1. How national governance enables IE via legitimation. Source: Authors' own work

without permits (Agiro *et al.*, 2015; Ram *et al.*, 2007). These informal businesses operate outside official oversight, not necessarily because of a disregard for the law, but because navigating the regulatory maze becomes prohibitively difficult. When national governance is high, resulting in over-regulation, informality can become a pragmatic solution. In such environments, informal ventures are often legitimated as they address unmet needs within their communities. Consequently, once a country exceeds its regulatory effectiveness peak, its rate of IE tends to rise due to a *legitimation mechanism* that emerges from increased socio-cultural acceptability (Davidsson *et al.*, 2022) of informal business ventures. In this context, the advantages of avoiding complex laws in overregulated environments may outweigh the disadvantages associated with formal compliance.

H1. There is a U-shaped relationship between national governance and IE where national governance is negatively related to IE up to a point, after which the relationship becomes positive.

2.2 Culture as agency-intensity regulator

The interplay between written laws and regulations and the underlying cultural context is crucial in shaping the legitimation of IE. Cultural values significantly influence societal perceptions of what is morally acceptable (Stephan, 2020). Drawing on the external enablement framework (Davidsson *et al.*, 2020; Kimjeon and Davidsson, 2022; Briel *et al.*, 2025), this study posits that culture acts as an *agency-intensity regulator* within the legitimation processes that connect national governance to the enablement of IE. Within the external enablement framework, *agency-intensity* denotes the extent to which activation of an enabling mechanism requires tenacity, risk-bearing and resource investments (Davidsson *et al.*, 2022). Building on this concept, we highlight that cultural values embedded in the society can systematically lower the agency-intensity of the legitimation mechanism enacted by sub-optimal levels of national governance, making it less demanding for entrepreneurs to exploit IE. Specifically, collective values such as institutional and in-group collectivism, as well as other cultural values such as uncertainty avoidance, future orientation and assertiveness serve to mitigate the effort required to seize opportunities in the informal sector.

2.2.1 The role of collective values. Collective values involve institutional and in-group collectivism. In nations characterised by high institutional collectivism, individuals prioritise societal goals over personal ambition (Javidan *et al.*, 2006), fostering an environment of mutual support and cooperation (Triandis, 1993). In contrast, societies with low levels of institutional collectivism often promote individualistic, self-reliant behaviours (Javidan *et al.*, 2006). Research has shown that institutional collectivism can hinder entry into formal entrepreneurship (Autio *et al.*, 2013; Wennberg *et al.*, 2013). Yet institutional collectivism can reduce the agency-intensity associated with the legitimation mechanism (Davidsson *et al.*, 2022) that fosters IE, as individuals motivated by loyalty and cohesion are better positioned to navigate the resource acquisition challenges inherent in informal ventures. This cultural grounding enables entrepreneurs to form partnerships and bolster resource-sharing networks, which can be especially advantageous when formal regulations are ineffective or burdensome (Castro *et al.*, 2014), thereby steepening the U-shaped governance–IE relationship.

Similarly, societies that exhibit strong in-group collectivism often display lower levels of entrepreneurship (Hayton *et al.*, 2002; Mitchell *et al.*, 2000; Mornah and MacDermott, 2016). This trend arises because ventures can be perceived as prioritising individual interests over those of the collective (Bennett and Nikolaev, 2021), leading to a negative association between in-group collectivism and formal entrepreneurial activities (Pathak and Muralidharan, 2016). Yet, the role of family and close social networks is pivotal for informal entrepreneurs, as these bonds often foster a strong emotional connection to home and community (Brinkerink and Rondi, 2020). In situations where government support and formal institutional backing are lacking or burdensome, in-group collectivistic values incentivise resource mobilisation within close networks, sustaining informal ventures (Aldrich and Cliff, 2003). By reinforcing norms of mutual aid and loyalty, in-group collectivism can enhance the legitimacy of informal businesses, particularly when formal regulatory frameworks are ineffective or overly intricate. From an external enablement perspective, this decreases the agency-intensity needed to enable the focal ventures (Davidsson *et al.*, 2022), by making it inherently less demanding to legitimise IE when national regulations are not at their regulatory effectiveness peak.

H2. Institutional collectivism positively moderates the U-shaped relationship between national governance and informal entrepreneurship, such that when institutional collectivism increases, the U-shaped relationship steepens.

H3. In-group collectivism positively moderates the U-shaped relationship between national governance and informal entrepreneurship, such that when in-group collectivism increases, the U-shaped relationship steepens.

2.2.2 The role of uncertainty avoidance, assertiveness and future orientation. Besides collective values, uncertainty avoidance, assertiveness and future orientation are also important values in the enablement of IE. In societies where uncertainty and ambiguity are minimised, individuals tend to engage with moderate, calculated risks, favouring predictability over the inherent uncertainties of entrepreneurial endeavours (McMullen and Shepherd, 2006). When regulatory frameworks are perceived as overly complicated or ineffective, uncertainty-avoidant societies often turn to informal norms to guide business activity. For instance, when healthcare regulations are cumbersome or poorly enforced, providers and businesses may bypass formal requirements, leading to widespread informal practices such as unlicensed pharmacies, informal drug sales and unregistered practitioners (Sudhinaraset *et al.*, 2013). This dynamic allows informal ventures to thrive under the societal acceptance of operating outside formal regulatory structures (Webb *et al.*, 2009). Building on the external enablement framework (Davidsson *et al.*, 2022), uncertainty avoidance increases the legitimacy of IE by reducing the agency-intensity associated with the enabling mechanism between national governance and IE.

In addition, assertiveness can function as an agency-intensity regulator (Davidsson *et al.*, 2022). High assertiveness levels often correlate with a confrontational stance towards ineffective government functions and policies (Mickiewicz *et al.*, 2019), empowering individuals to challenge state authority and, consequently, leading to an increase in IE (Uzo and Mair, 2014). In contrast, cultures characterised by low assertiveness tend to promote more passive acceptance of ineffective state policies and bureaucratic hurdles (Javidan *et al.*, 2006), resulting in a diminished engagement with informal entrepreneurial activities. In this context, assertive cultural values empower individuals to confront authorities, and make the legitimation mechanisms of sub-optimal national governance on IE easier to activate, i.e. less agent-intense (Davidsson *et al.*, 2022).

Further, in societies with a strong emphasis on future orientation, individuals possess a heightened ability to envision contingencies, set long-term goals and devise strategies to achieve their aspirations (Shane and Venkataraman, 2000). Scholars have often linked future orientation to entrepreneurship (Lévesque and Stephan, 2020), highlighting a positive correlation, especially in the context of growth-oriented entrepreneurship (e.g. Zhao *et al.*, 2012). In future-oriented societies, operating informally becomes increasingly acceptable when regulatory frameworks are sub-optimal, as entrepreneurs are more inclined to invest in informal activities as a means of achieving long-term goals (Das and Teng, 1998; Lumpkin and Brigham, 2011). By lowering the agency-intensity of the legitimation mechanism, future orientation makes it less demanding for entrepreneurs to perceive and exploit IE as a viable long-term response to suboptimal governance, thereby steepening the U-shaped governance-IE relationship.

H4. Uncertainty avoidance positively moderates the U-shaped relationship between national governance and informal entrepreneurship, such that when uncertainty avoidance increases, the U-shaped relationship steepens.

H5. Assertiveness positively moderates the U-shaped relationship between national governance and informal entrepreneurship, such that when assertiveness increases, the U-shaped relationship steepens.

H6. Future orientation positively moderates the U-shaped relationship between national governance and informal entrepreneurship, such that when future orientation increases, the U-shaped relationship steepens.

3. Methods

This research employs survey data for 36 countries across 12 years (2006–2017) obtained by merging data from four sources: the Global Entrepreneurship Monitor (GEM)'s Adult Population Survey (APS), World Governance Indicators (WGI), Global Leadership and Organizational Behavior Effectiveness (GLOBE) and World Development Indicators. The data sample was built in four main steps. First, the dependent variable (IE) was built by employing data from the GEM APS national-level database (Bosma *et al.*, 2021), which covers 112 countries across 16 years (from 2002 to 2017) for a total of 820 observations. Second, the independent variable, which is a composite measure of national governance (Kaufmann and Kraay, 2024), was built by employing country-year observations from the WGI database. The WGI dataset spans 214 economies; after merging this database with the GEM sample and retaining only country-year observations matched in both datasets, the sample was reduced to 707 observations across 89 countries. Third, the moderating cultural values variables were drawn from the GLOBE Project (House and Javidan, 2004), which provided cross-sectional data on societal cultural values across 58 countries. As GLOBE coverage is more limited than either GEM or WGI, this merge step produced a reduction in sample size, yielding 497 observations across 50 countries. Fourth, the control variables were sourced from the World Development Indicators. This final merging step, combined with the restriction to the period for which all variables are simultaneously available, yielded the complete analytical sample of 36 countries from 2006 to 2017, comprising 236 observations. A full description of all variables, their operationalisation and their sources is provided in the Supplementary Online Material (SOM, Table S0).

3.1 Dependent variable

The guidelines by Laing *et al.* (2022) were followed for measuring IE using GEM APS data. Laing *et al.* (2022) recommend the young business entrepreneurship rate as the most appropriate country-level proxy for IE. Specifically, IE was measured using the young business entrepreneurship rate from the GEM APS national-level data (Bosma *et al.*, 2021), defined as the percentage of 18–64 year-olds who own and manage a business that has been generating income for between 3 and 42 months. For each year in the panel (2006–2017), this rate was extracted directly from GEM's annual national-level APS datasets and harmonised into a single variable across years prior to merging with the remaining data sources. These young businesses are characterised by high levels of informality as they typically do not comply with all national legal mandates related to the provision of goods and services (Laing *et al.*, 2022). In the robustness analysis (Supplementary Online Material (SOM), Table S1, pp. 2–4), further GLS panel regressions were run with the alternative measure of IE (Alt-IE) proposed by Acs *et al.* (2008) to capture the total number of unregistered new ventures established in a country per year as a percentage of the working age population. Similar to previous studies (Dau and Cuervo-Cazurra, 2014; Autio and Fu, 2015), the average level of IE in the sample (Table 1) is higher in Latin American, African and Asia Pacific countries, compared to Organisation for Economic Co-operation and Development countries.

Table 1. Overview of countries, level of IE, national governance and cultural values [1]

Country	IE (percentage)	National governance (standardised)	ISC	IGC	UA	ASS	FO
Countries exhibiting low national governance							
Nigeria	20.66	−1.68	5.03	5.48	5.60	3.23	6.04
Zambia	15.80	−0.71	4.74	5.77	4.67	4.38	5.90
Thailand	12.77	−0.75	5.10	5.76	5.61	3.48	6.20
Philippines	12.07	−0.78	4.78	6.18	5.14	5.14	5.93
Indonesia	11.38	−0.69	5.18	5.67	5.23	4.72	5.70
Colombia	9.53	−0.75	5.38	6.25	4.98	3.43	5.68
Guatemala	8.49	−1.08	5.23	6.14	4.88	3.64	5.91
El Salvador	6.66	−0.66	5.65	6.52	5.32	3.62	5.98
Morocco	5.62	−0.74	5.00	5.68	5.32	3.44	5.85
Turkey	4.93	−0.54	5.26	5.77	4.67	2.66	5.83
Mexico	4.38	−0.69	4.92	5.95	5.26	3.79	5.86
Kazakhstan	4.38	−0.93	4.04	5.44	4.42	3.84	5.05
Countries exhibiting medium national governance							
Costa Rica	4.12	0.30	5.18	6.08	4.58	4.05	5.20
Malaysia	4.05	−0.06	4.87	5.85	4.88	4.81	5.89
Qatar	3.93	0.06	5.13	5.60	4.82	3.80	5.92
Ireland	3.80	1.10	4.59	5.74	4.02	3.99	5.22
Georgia	3.77	0.03	3.83	5.66	5.24	4.35	5.55
Portugal	3.70	0.67	5.30	5.94	4.43	3.58	5.43
South Africa	3.63	−0.17	4.34	5.45	4.73	3.75	5.43
Poland	3.54	0.50	4.22	5.74	4.71	3.90	5.20
United Kingdom	3.52	1.13	4.31	5.55	4.11	3.70	5.06
Israel	3.45	0.29	4.27	5.75	4.38	3.76	5.25
Hungary	3.20	0.36	4.50	5.54	4.66	3.35	5.70
Spain	3.09	0.53	5.20	5.79	4.76	4.00	5.63
Greece	2.69	−0.01	5.40	5.46	5.09	2.96	5.19
Germany	1.94	1.23	4.75	5.20	3.63	3.16	5.04
France	1.82	0.90	4.86	5.42	4.26	3.38	4.96
Italy	1.70	0.19	5.13	5.72	4.47	3.82	5.91
Countries exhibiting high national governance							
Sweden	2.29	1.53	3.94	6.04	3.60	3.61	4.89
Denmark	2.35	1.59	4.19	5.50	3.82	3.39	4.33
Finland	2.78	1.60	4.11	5.42	3.85	3.68	5.07
Austria	2.79	1.29	4.73	5.27	3.66	2.81	5.11
Switzerland	3.26	1.52	4.69	4.94	3.16	3.21	4.79
Netherlands	3.92	1.42	4.55	5.17	3.24	3.02	5.07
Canada	5.17	1.40	4.17	5.97	3.75	4.15	5.35
Australia	5.42	1.33	4.40	5.75	3.98	3.81	5.15

Note(s): ISC = institutional collectivism, IGC = in-group collectivism, UA = uncertainty avoidance ASS = assertiveness, FO = future orientation

Source(s): Authors' own work

3.2 Independent variable

The aggregated measure of *national governance* derived from WGI (Kaufmann *et al.*, 2007) was employed. Following prior studies (e.g. Dau and Cuervo-Cazurra, 2014), the national governance aggregated measure comprises six standardised indices, including government effectiveness, regulatory quality, political stability, voice and accountability, control of corruption and rule of law (Cronbach's alpha = 0.96).

3.3 Moderating variables

The moderating variables were obtained from GLOBE cultural value measures of *institutional collectivism*, *in-group collectivism*, *uncertainty avoidance*, *assertiveness* and *future orientation*. Cultural values are operationalised using GLOBE's societal values ('should-be') subscales rather than societal practices ('as-is') subscales, consistent with the theoretical distinction between descriptive and normative cultural orientations (House *et al.*, 2004; Stephan, 2020). Each cultural value measure adopted in this study derives from four questions, with responses provided on a Likert scale ranging from 1 to 7 (higher scores indicate stronger endorsement of each cultural value dimension as a societal ideal). Table 1 provides evidence of the cultural values for each country in the sample. Similar measures were employed by previous studies to test culture (e.g. Autio *et al.*, 2013; Minola *et al.*, 2016).

3.4 Control variables

All control variables were obtained from the World Development Indicators. Specifically, a *national population estimate* in millions was employed as a proxy of the size and evolution paths of national markets in which IE is embedded. A measure of national *unemployment* rate was added as one of the main drivers of IE (Omri, 2020). *GDP growth* (Fredström *et al.*, 2021), *innovation* (Solow, 1957), *primary education* (Webb *et al.*, 2014), *time required to register a property* estimated in days, as well as *start-up registration procedure*, as the number of days required to register a business (Galiani *et al.*, 2017), were also added as control variables. Further, the role of *trade in services*, *manufacturing* and *industry* as percentages of total GDP were added to the models. Formal entrepreneurship was employed to control for unobserved, historical economic behaviour relating to specific events occurring over time (Omri, 2020).

3.5 Analytical approach

Given the static nature of the moderating cultural variables, a random-effects GLS estimator was employed on panel data following the recommendations by Bell *et al.* (2019) and by correcting for heteroscedasticity (White, 1980; Huber, 1967). Table 2 presents the descriptive statistics and bivariate relationships between the variables employed in the analysis. Table 3 presents the empirical Models and results of the random-effects panel GLS regressions. Model 1includes the control variables, Model 2 adds national governance as a linear term and Model 3 adds national governance as a squared term. Models 4 through 8 integrate the interaction between national governance as a squared term and the cultural value variables.

To rigorously test the U-shaped relationship between national governance and IE, the three-step procedure suggested by Haans *et al.* (2016) was followed. First, a *t*-test was run to confirm the joint significance of the linear and quadratic relationships between national governance and IE in Model 3. Second, the presence of the U-shaped relationship was checked through the Sasabuchi test (Sasabuchi, 1980). Third, the turning point and its 95% confidence interval were estimated following both the Fieller method (Fieller, 1954) and the Delta method (Rao, 1973; Lind and Mehlum, 2010).

In the robustness analysis, further models were run using two alternative dependent variables, including the alternative measure of IE (Alt-IE) as proposed by Acs *et al.* (2008) (SOM, Table S1, pp. 3–5), as well as a measure of formal entrepreneurship (SOM, Table S2, pp. 5–8). The results are further tested by disentangling the national governance index into its sub-components (SOM, Tables S3, S4, S5, pp. 8–14). Finally, the moderating effects of cultural practices were tested on the U-shaped relationship between national governance and IE (SOM, Table S6, pp. 14–16).

4. Results

The descriptive statistics display an approximate average annual rate of IE of 4.63% across countries in the sample (Table 2), meaning that approximately 4.63% of the 18–64 adult

Table 2. Descriptive statistics and correlation matrix

	Mean	S.D.	Min	Max	1	2	3	4	5	6	7	8	9
1.IE	4.63	3.50	0.96	20.66	1.00								
2.FE	0.32	0.30	0.00	1.56	−0.26*	1.00							
3.Population	3.95E+07	4.40E+07	2.46E+06	2.65E+08	0.37*	−0.28*	1.00						
4.Unemployment	8.48	5.97	0.14	27.47	−0.25*	0.07	−0.09	1.00					
5.GDP growth	1.44	2.73	−9.00	9.42	0.31*	−0.16*	0.16*	−0.23*	1.00				
6.Innovation	8669	14291	17	67899	−0.16*	0.04	0.32*	−0.14*	−0.04	1.00			
7.Primary education	104	5.25	94	125	0.23*	−0.07	0.06	0.02	0.10	−0.12	1.00		
8.Startup registration procedure	6.94	2.94	2.00	17.00	0.34*	−0.51*	0.44*	−0.04	0.12	−0.02	0.24*	1.00	
9.Time to register a property	28.83	29.62	1.00	150.00	−0.10	−0.12	0.09	−0.08	0.00	0.18*	−0.12	0.02	1.00
10.Trade in services	19.37	13.12	3.94	123.53	−0.20*	0.24*	−0.39*	−0.15*	0.01	−0.19*	−0.24*	−0.31*	−0.02
11.Manufacturing	15.03	5.23	5.79	33.11	0.25*	−0.34*	0.24*	−0.43*	0.33*	0.07	−0.15*	0.21*	0.08
12.Industry	26.22	7.45	13.68	69.76	0.41*	−0.21*	0.30*	−0.44*	0.31*	0.00	0.04	0.27*	−0.03
13.Year	2012	3.31	2006	2017	0.08	0.02	0.13*	0.05	0.01	0.02	0.05	−0.13*	−0.17*
14.National governance	0.40	0.88	−1.68	1.67	−0.58*	0.49*	−0.37*	−0.06	−0.25*	0.28*	−0.27*	−0.54*	−0.04
15.ISC	4.76	0.45	3.83	5.65	0.30*	−0.46*	0.30*	0.12	0.01	−0.12	0.24*	0.65*	−0.14*
16.IGC	5.65	0.32	4.94	6.52	0.39*	−0.18*	0.09	−0.01	0.23*	−0.22*	0.41*	0.24*	−0.05
17.UA	4.42	0.64	3.16	5.61	0.49*	−0.36*	0.36*	0.17*	0.16*	−0.29*	0.09	0.45*	0.06
18.ASS	3.62	0.50	2.66	5.14	0.22*	0.04	0.25*	−0.09	0.16*	−0.05	0.11	0.10	0.11
19.FO	5.40	0.43	4.33	6.20	0.51*	−0.40*	0.34*	−0.05	0.21*	−0.17*	0.11	0.44*	−0.09

(*continued*)

Table 2. Continued

	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1.IE														
2.FE														
3.Population														
4.Unemployment														
5.GDP growth														
6.Innovation														
7.Primary education														
8.Startup registration procedure														
9.Time to register a property														
10.Trade in services	1.00													
11.Manufacturing	0.31*	1.00												
12.Industry	0.01	0.54*	1.00											
13.Year	0.08	−0.05	0.05	1.00										
14.National governance	0.38*	−0.17*	−0.37*	−0.19*	1.00									
15.ISC	−0.23*	0.08	0.09	0.07	−0.54*	1.00								
16.IGC	−0.31*	0.01	0.19*	0.06	−0.54*	0.33*	1.00							
17.UA	−0.30*	0.17*	0.33*	0.15*	−0.87*	0.53*	0.59*	1.00						
18.ASS	−0.08	0.17*	0.43*	0.14*	−0.22*	−0.12	0.44*	0.32*	1.00					
19.FO	−0.30*	0.35*	0.47*	0.14*	−0.77*	0.57*	0.56*	0.78*	0.33*	1.00				

Note(s): IE = informal entrepreneurship, FE = formal entrepreneurship, NGov = national governance, ISC = institutional collectivism, IGC = in-group collectivism, UA = uncertainty avoidance, ASS = assertiveness, FO = future orientation
36 countries, $N = 236$, $*p < 0.05$

Source(s): Authors' own work

Table 3. Random-effects panel regressions

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)
FE	0.085	0.363	0.387	0.327	0.353	0.371	0.320	0.401
	(0.460)	(0.488)	(0.389)	(0.390)	(0.359)	(0.368)	(0.333)	(0.357)
Population	3.982	2.061	0.885	0.752	0.904	−0.934	0.680	0.173
	(3.055)	(2.016)	(1.124)	(1.109)	(1.431)	(1.017)	(1.598)	(1.187)
Unemployment	0.014	−0.313	−0.083	−0.064	−0.094	0.048	−0.108	0.070
	(0.368)	(0.270)	(0.244)	(0.229)	(0.259)	(0.276)	(0.257)	(0.306)
GDP growth	0.137	0.070	0.127	0.130	0.116	0.119	0.132	0.120
	(0.282)	(0.249)	(0.262)	(0.277)	(0.262)	(0.260)	(0.248)	(0.275)
Innovation	−6.478**	−0.773	−1.116	−1.497	−1.586	−1.197	−2.043	−1.900
	(2.528)	(2.195)	(1.722)	(1.590)	(1.764)	(1.721)	(2.068)	(1.672)
Primary education	0.096	0.058	0.056	0.029	0.016	0.185	0.073	0.225
	(0.484)	(0.429)	(0.280)	(0.234)	(0.280)	(0.297)	(0.292)	(0.308)
Startup register procedure	0.393	0.235	0.487**	0.562**	0.527**	0.567**	0.497**	0.410*
	(0.335)	(0.270)	(0.205)	(0.224)	(0.222)	(0.239)	(0.240)	(0.234)
Time to register a property	0.080	−0.027	−0.101	−0.147	−0.080	−0.137	−0.019	−0.095
	(0.245)	(0.244)	(0.162)	(0.176)	(0.162)	(0.163)	(0.152)	(0.167)
Trade in services	−0.766	0.472	0.286	0.336	0.248	−0.096	0.146	0.197
	(0.689)	(0.583)	(0.406)	(0.397)	(0.492)	(0.460)	(0.574)	(0.484)
Manufacturing	0.401	0.030	0.009	−0.228	0.084	0.059	0.060	−0.063
	(0.785)	(0.666)	(0.582)	(0.574)	(0.584)	(0.539)	(0.586)	(0.547)
Industry	0.616	0.132	0.304	0.481	0.264	0.556	0.188	0.541
	(0.571)	(0.459)	(0.423)	(0.441)	(0.424)	(0.451)	(0.463)	(0.469)
Year control	Included	Included	Included	Included	Included	Included	Included	Included
NGov		−2.786***	−3.876***	−3.099***	−3.697***	−2.115*	−3.846***	−2.225***
		(0.841)	(0.801)	(0.821)	(0.952)	(1.227)	(1.117)	(0.824)
NGov × NGov (H1)			2.777***	2.381***	2.963***	2.247***	3.677***	2.577***
			(0.456)	(0.538)	(0.525)	(0.659)	(0.686)	(0.694)
ISC				−0.460				
				(0.318)				

(*continued*)

Table 3. Continued

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)
NGov × ISC				−1.186*				
				(0.673)				
NGov × NGov × ISC (H2)				1.124**				
				(0.483)				
IGC					−0.019			
					(0.544)			
NGov × IGC					0.167			
					(0.612)			
NGov × NGov × IGC (H3)					0.347			
					(0.545)			
UA						0.132		
						(0.875)		
NGov × UA						−1.523*		
						(0.824)		
NGov × NGov × UA (H4)						1.334**		
						(0.544)		
ASS							−0.040	
							(0.686)	
NGov × ASS							−0.324	
							(0.851)	
NGov × NGov × ASS (H5)							1.519**	
							(0.723)	
FO								0.252
								(0.669)
NGov × FO								−1.108
								(0.785)
NGov × NGov × FO (H6)								1.291***
								(0.346)

(*continued*)

Table 3. Continued

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)
Constant	3.868***	6.069***	3.475***	3.470***	3.248***	2.598***	2.762***	2.799***
	(0.825)	(1.079)	(0.793)	(0.805)	(0.867)	(0.979)	(0.963)	(0.785)
VIF	1.51	1.66	1.93	2.45	2.91	4.27	2.35	3.45
Number of observations	236	236	236	236	236	236	236	236
Number of groups (countries)	36	36	36	36	36	36	36	36
SD of random intercept, σ_u	2.88	2.47	2.19	2.09	2.32	2.28	2.34	2.23
SD of overall residual, σ_e	1.49	1.49	1.43	1.41	1.42	1.42	1.41	1.42
ρ	0.79	0.73	0.70	0.69	0.72	0.72	0.73	0.71
Within R2	0.03	0.07	0.16	0.16	0.16	0.19	0.20	0.16
Between R2	0.39	0.54	0.71	0.74	0.71	0.74	0.71	0.79
Overall R2	0.32	0.42	0.56	0.60	0.57	0.63	0.56	0.65
Wald Test								
Wald χ^2	67.94	91.22	431.25	686.84	825.59	263.21	262.90	300.51
Degrees of freedom	22	23	24	27	27	27	27	27
Prob > χ^2	***	***	***	***	***	***	***	***

Note(s): FE = formal entrepreneurship, NGov = national governance, ISC = institutional collectivism, IGC = in-group collectivism, UA = uncertainty avoidance, ASS = assertiveness, FO = future orientation
Cluster-robust standard errors in parentheses
†$p < 0.10$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Source(s): Authors' own work

population are owner-managers of informal enterprises. Instead, the approximate average annual rate of formal entrepreneurship (FE) across countries in the sample is only 0.32%. To avoid multi-collinearity issues, the independent, moderating and control variables were standardised to mean zero and unit standard deviation. Table 3 presents the collinearity diagnostics as well as the main results. The diagnostics show a mean variance inflation factor (VIF) of 2.50, with a high of 4.27 and a low of 1.51. The VIF is consistently lower than the threshold value of 5 (Graham, 2003). In addition, the moderating effects were tested independently in distinctive models, using a step-wise approach.

Model 1 (Table 3) reports the relationships between the control variables and IE. Model 2 results show a significant and negative linear relationship between national governance and IE ($\beta = -2.786$, $p = 0.001$). In Model 3, the linear relationship between national governance and IE increases in absolute value and remains significant ($\beta = -3.876$, $p = 0.000$). The squared term of national governance is positive and significant ($\beta = 2.777$, $p = 0.000$). The presence of a U-shaped relationship between national governance and IE is further confirmed by the three-step procedure suggested by Haans *et al.* (2016) and detailed in the following, providing robust support for H1. First, the joint significance *t*-test results ($p < 0.01$) provide evidence of joint significant linear and quadratic terms. Second, the Sasabuchi test (Sasabuchi, 1980) confirms that the slope is sufficiently steep at both ends of the data range ($p < 0.01$). Third, the turning point and its 95% confidence interval are comparable and within the data range (Fieller method: turning point = 0.698, 95% CI = 0.464; 0.979; Delta method: turning point = 0.698, 95% CI = 0.456; 0.939). Following the guidelines by Hirschberg and Lye (2005), further graphical representation of the turning point and 95% confidence interval was developed based on the Fieller method in Figure 2.

Model 4 shows that institutional collectivism has a statistically significant and positive moderating effect ($\beta = 1.124$, $p = 0.02$) on the U-shaped relationship between national governance and IE. Thus, H2 is supported. The moderating effect of in-group collectivism ($\beta = 0.347$, $p = 0.524$) presented in Model 5 is not significant. Thus, H3 is not supported. Models 6, 7 and 8 report the statistically significant and positive moderating effects of uncertainty avoidance ($\beta = 1.334$, $p = 0.014$), assertiveness ($\beta = 1.519$, $p = 0.036$) and future orientation ($\beta = 1.291$, $p = 0.000$) on the U-shape. Thus, H4, H5 and H6 are supported.

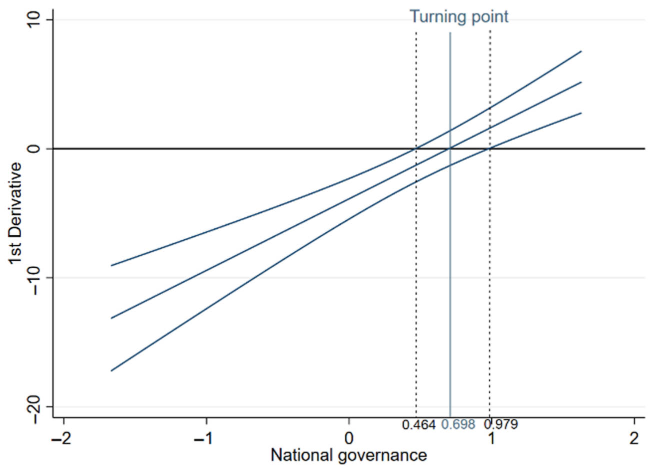

Figure 2. Graphical representation of turning point and 95% CI. Source: Authors' own work

5. Discussion

The empirical results provide support for the hypothesised U-shaped relationship between national governance and IE, highlighting that the influence of governance on informal businesses is non-linear (Figure 3). The analysis empirically demonstrates that national governance serves as a dual force, capable of enabling or disabling IE depending on the effectiveness and intensity of regulatory policies. In contexts of weak national governance, informal entrepreneurial activities often thrive, exploiting legal inefficiencies and operating under government radar (Nason and Bothello, 2023; Khavul *et al.*, 2009). Individuals engaging in this form of entrepreneurship may leverage social networks and cultural values to support their ventures (Xheneti *et al.*, 2019; Mallon and Fainshmidt, 2025). This opportunistic behaviour, however, does not necessarily equate to unethical conduct, as these ventures maintain alignment with socially accepted norms (Webb *et al.*, 2009; Estrin *et al.*, 2024; Laing *et al.*, 2022).

Conversely, as national governance strengthens and regulations become overly stringent, IE can become a pragmatic response to unmet market demands (Williams and Martinez, 2014). For instance, the rise of platforms like Uber and Airbnb exemplifies how IE can thrive in over-regulated markets. Airbnb gained popularity in California and New York despite laws prohibiting the short-term rental of private apartments. The discourse surrounding these platforms emphasised their inherently good and convenient nature, branding them as “a global travel community that offers magical end-to-end trips, including where you stay, what you do, and the people you meet” (Ravenelle, 2020, p. 4). Here, IE often represents a pragmatic solution, allowing access to essential services that formal mechanisms may fail to provide.

This U-shaped relationship underscores the delicate balance that national governance must maintain to foster a formal entrepreneurial ecosystem. At intermediate levels of governance, regulatory frameworks are effective in supporting formal entrepreneurship while imposing constraints on informal enterprises. However, when governance is situated at either extreme (either too lenient or excessively stringent), the stage is set for a surge in IE, facilitated by an enabling *legitimation mechanism*. The study further demonstrates the critical role of cultural values as agency-intensity regulators of this legitimation mechanism (Figure 4), indicating that institutional collectivism, uncertainty avoidance, assertiveness and future orientation significantly steepen the U-shaped relationship between national governance and IE.

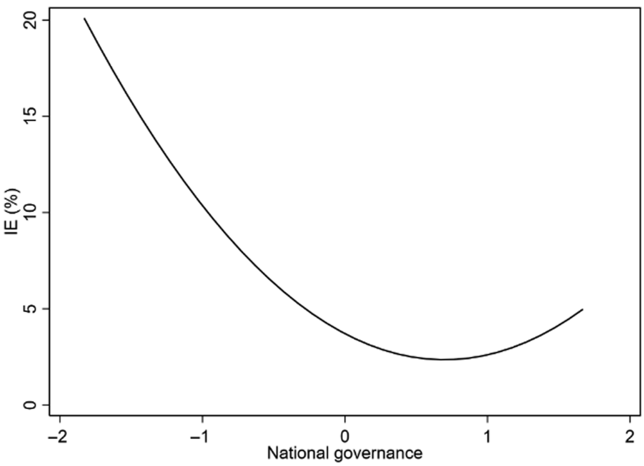

Figure 3. Predictive margins: U-shaped relationship between national governance and IE. Source: Authors’ own work

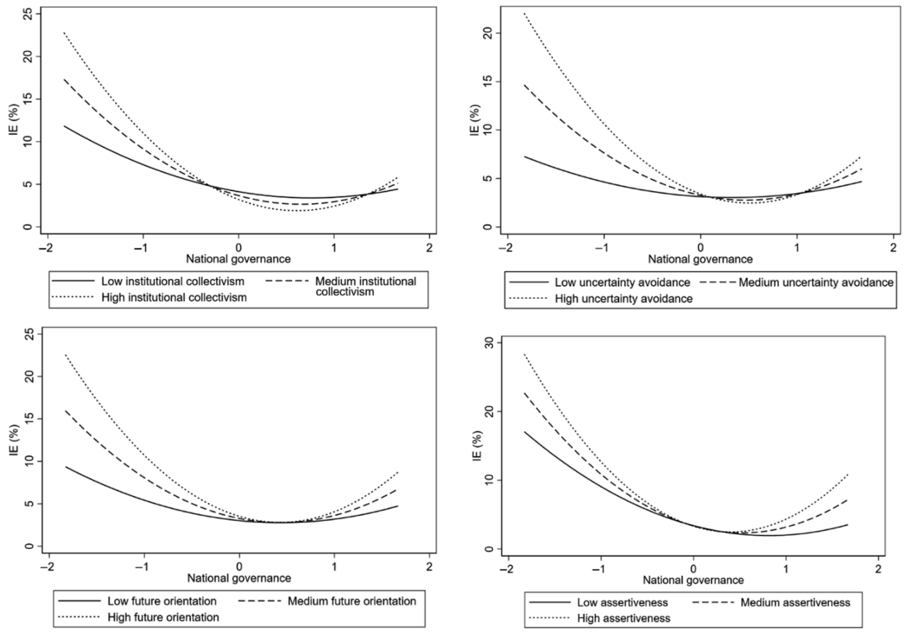

Figure 4. Predictive margins: moderating role of institutional collectivism, uncertainty avoidance, assertiveness and future orientation. Source: Authors' own work

These dynamics become concrete when examined across specific country clusters in the sample (Table 1). Nigeria (national governance: −1.68; IE: 20.66%) illustrates the low-governance end of the U-shape, where weak governance enforcement creates conditions in which IE is structurally enabled, while high future orientation (6.04) and moderate institutional collectivism (5.03) further lower the agency-intensity of exploiting this enabling environment. These findings show that for entrepreneurs in Nigeria it is comparatively easier to act on informal opportunities with community backing (Ackrill and Igudia, 2024; Meagher, 2014). By contrast, Australia (national governance: 1.33; IE: 5.42%) and Canada (national governance: 1.40; IE: 5.17%) stand at the high-governance end of the curve, where IE emerges despite strong regulatory frameworks. Here, the legitimation mechanism intensifies through relatively high assertiveness (Canada: 4.15; Australia: 3.81) and future orientation scores (Canada: 5.35; Australia: 5.15). These patterns suggest that a forward-looking disposition and willingness to confront regulatory complexity sustain the social acceptability of IE even when formal institutions are well-developed, consistent with evidence that cultural embeddedness enables entrepreneurs to leverage legitimacy in the face of regulatory complexity (Mallon and Fainshmidt, 2025). The contrast with Germany (national governance: 1.23; IE: 1.94%) and France (national governance: 0.90; IE: 1.82%), which sit near the regulatory effectiveness peak with among the lowest IE rates in the sample, is instructive. Both countries combine medium governance with comparatively medium assertiveness scores (3.16 and 3.38, respectively) and high future orientation (5.04 and 4.96). These cultural profiles would generally decrease the agency-intensity of the legitimation mechanism (Davidsson *et al.*, 2022) and make it less demanding for entrepreneurs to perceive IE as socially acceptable, but because national governance is situated near its effectiveness peak, IE remains low. This pattern aligns with Helmke and Levitsky's (2004) substitution logic: where formal institutions perform well and cultural values do not provide a sufficiently strong substitutive legitimacy framework, informal activity is effectively suppressed. Taken together, these country-level patterns illustrate that the governance-IE relationship is not uniform but is systematically regulated by the cultural substrate of each national context, with cultural values amplifying the enabling potential of governance at both extremes of the U-shape.

5.1 Theoretical contributions

This research makes three main theoretical contributions to previous literature. First, it extends the conversation on institutions and IE (e.g. Igudia *et al.*, 2022; Mickiewicz *et al.*, 2019; Williams and Shahid, 2016). The findings provide evidence that the relationship between national governance and IE is curvilinear and not linear as previously found (e.g. Dau and Cuervo-Cazurra, 2014; Thai and Turkina, 2014; Williams and Martinez, 2014). Specifically, the results demonstrate that low levels of national governance foster IE, while higher levels of governance initially reduce the likelihood of individuals starting informal ventures until a *regulatory effectiveness peak* is reached. Beyond this point, national governance becomes an external enabler of IE by enacting a *legitimation mechanism*, through which overly stringent regulations increase the sociocultural acceptability of operating informally, making the informal sector a perceived viable alternative.

Second, this study also contributes an empirical account of *culture as an agency-intensity regulator* of an external enabler. Therefore, it adds to a nascent conversation on how informal institutions shape the exploitation of enabling mechanisms (Davidsson *et al.*, 2020, 2022; Kimjeon and Davidsson, 2022). Within the external enablement framework, agency-intensity denotes the extent to which activation of an enabling mechanism requires tenacity, risk-bearing and resource investments (Davidsson *et al.*, 2022). Building on this concept, our findings suggest that cultural values reflecting what "should be right" (specifically institutional collectivism, uncertainty avoidance, assertiveness and future orientation) systematically reduce the agency-intensity of the IE legitimation mechanism, making it less demanding for entrepreneurs to perceive and exploit IE as a socially acceptable response to sub-optimal governance levels.

Third, this study responds to the call by Uriarte *et al.* (2025) for a more nuanced examination of the intersection between informal societal structures and ethical decision-making within the entrepreneurial landscape. Their work shows that ethical considerations in entrepreneurship vary markedly depending on whether ventures are formal or informal, and that informal ventures often adopt strategies of rule-breaking whose moral status is context-dependent. Brenkert (2009) offers a virtue-based reading of this ambiguity, arguing that specific instances of rule-breaking may be ethically justified as catalysts for creative destruction and economic advancement when the institutional environment renders formal compliance excessively burdensome. The present findings extend this reasoning by showing that the ethical calculus surrounding informality is not fixed but is shaped by the interplay of governance and culture. The same institutional context that legitimises IE in one cultural setting may delegitimise it in another. This reasoning has direct implications for how individual decisions are made and revised over time. Because informality is a choice rather than a permanent state (Igudia *et al.*, 2022; Shahid *et al.*, 2022), entrepreneurs can shift between formal and informal modes of operating depending on how institutional conditions evolve (Bennett, 2010), and ventures that have formalised can revert to informality when those conditions change (Salvi *et al.*, 2023).

5.2 Practical implications

The findings carry concrete recommendations for policymakers and entrepreneurs. For policymakers, we suggest that governance reform should be calibrated rather than maximised. Since the regulatory effectiveness peak is culturally conditioned, reforms that ignore the cultural context risk being systematically undermined. In contexts characterised by high institutional collectivism, collective norms sustain the social acceptability of IE, meaning that top-down formalisation mandates are likely to be absorbed and neutralised by the surrounding social fabric rather than complied with (Javidan *et al.*, 2006). In high assertiveness contexts, entrepreneurs are culturally predisposed to challenge overly stringent regulation, increasing the likelihood that excessive governance triggers rather than suppresses informal venturing (House *et al.*, 2004; Herrera *et al.*, 2011). This means that policy design cannot remain a purely national exercise. Instead, regional and municipal authorities need to be trained to recognise and respond to local cultural values, rather than implementing top-down formalisation mandates that are culturally misaligned with the communities they seek to reach. Additionally, policymakers should not assume that informal entrepreneurs possess the knowledge or capacity to comply with formal requirements. Concrete interventions should include accessible training programs that teach entrepreneurs how to compile tax reports, register a business, access formal credit and navigate labour regulations, delivered in culturally and linguistically appropriate formats at the local level. Finally, not all IE warrants the same policy response. Morally motivated IE, which fulfils genuine market needs that formal mechanisms fail to address (Salvi *et al.*, 2025), requires facilitation rather than eradication, while renegade activity contravening both legal and social norms requires targeted sanctioning (Cannatelli *et al.*, 2019). Pursuing blanket eradication risks undermining the substantial contributions IE makes to employment generation (Kesteloot and Meert, 1999; Espinal and Grasmuck, 1997) and economic resilience (McGahan, 2012; Kiptoo *et al.*, 2024), particularly in weak governance contexts where IE functions as a social safety net.

For informal entrepreneurs, the findings reframe informality as a structurally enabled and culturally regulated response to governance conditions rather than an individual compliance failing, consistent with evidence that cultural norms on resourcing and tacit knowledge sustain entrepreneurial persistence in adverse institutional environments (Kiptoo *et al.*, 2024; Salvi *et al.*, 2025). Practically, this means that support and development organisations should design context-sensitive programs that start from an analysis of who informal entrepreneurs are (for example, street vendors or home-based entrepreneurs) and how they can contribute to the local economy before designing transition pathways.

5.3 Limitations and future research directions

This study is not without limitations. One notable challenge is the difficulty in accurately estimating the intensity of IE across different countries, compounded by the limited availability of transnational individual-level data due to the inherently latent aspects of IE (Ackrill and Igudia, 2024). To address this, the methodology was aligned with the specifications proposed by Laing *et al.* (2022) for constructing the dependent variable and an alternative operationalisation of IE (Alt-IE) recommended by Acs *et al.* (2008) was employed in the robustness analysis (Supplementary Online Material, Table S1, pp. 2–4). A further limitation concerns the cultural measures employed. While GLOBE societal values (House *et al.*, 2004) are well-established in the literature, alternative cultural frameworks could provide valuable insights and understanding of the role of additional cultural values shaping IE, including materialism versus post-materialism (Inglehart, 1997), and Schwartz's cultural value orientation (Schwartz, 2006).

Several directions for future research emerge from these limitations. First, future research could examine whether the U-shaped governance-IE dynamic operates also at subnational levels, as governance quality and cultural values may vary considerably within the same national context (Nason and Bothello, 2023; Dheer *et al.*, 2015). Second, while the findings demonstrate that cultural values regulate the agency-intensity of the legitimation mechanism in place, the study does not examine how individual-level characteristics interact with these country-level factors. Future research could therefore investigate how individual attributes such as risk tolerance (Chavdarova, 2014), prior experience with informality (Engström and McKelvie, 2017) or access to social networks (Minbaeva *et al.*, 2022) influence entrepreneurs' ability to exploit the legitimation mechanism, thereby linking the macro-level findings of this study to micro-level entrepreneurial processes. Third, future research could examine how the governance-culture interplay shapes subsequent stages of the informal entrepreneurial process, including resource mobilisation (Siqueira and Bruton, 2010), growth aspirations (Briel *et al.*, 2025), persistence (Igudia *et al.*, 2022) and transitions towards formalisation (Xheneti *et al.*, 2019). Finally, future studies could extend the external enablement framework by examining whether cultural values regulate the agency-intensity of enabling mechanisms beyond legitimation, such as demand substitution and resource access (Salvi *et al.*, 2025), contributing to a broader understanding of how informal institutions shape entrepreneurial responses to external change (Davidsson *et al.*, 2020, 2022).

6. Conclusion

This study advances the literature on IE (Webb *et al.*, 2009, 2020; Salvi *et al.*, 2023) by combining new institutional economics (North, 1990; Helmke and Levitsky, 2004) and the external enablement framework (Davidsson *et al.*, 2020, 2022) to demonstrate how national governance and culture jointly shape IE enablement. Both under-governance and over-governance inadvertently enable informal activity through distinct mechanisms, and cultural values of institutional collectivism, uncertainty avoidance, assertiveness and future orientation regulate how demanding it is for entrepreneurs to exploit the legitimation mechanism this relationship enacts.

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Note

1. The United States is not included in the sample because it was excluded during the merging of the database with the World Development Indicators (WDI), which do not provide a measure of formal entrepreneurship for this country.

Supplementary material

The supplementary material for this article can be found online.

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