Review of Managerial Science
https://doi.org/10.1007/s11846-025-00938-2

ORIGINAL PAPER

Analyzing institutional dimensions and their effect on the survival of necessity and opportunity entrepreneurship

Tatiana Lopez[1,2] · **Claudia Alvarez**[3] · **David Urbano**[1]

Received: 5 January 2025 / Accepted: 6 September 2025

Abstract

While academia and policymakers have long favored opportunity entrepreneurship for its link to innovation and economic growth, recent evidence suggests that necessity entrepreneurship can manifest in diverse ways and develop into viable, long-lasting ventures. This is why our research goes beyond the debate about which type of entrepreneurship should be promoted. We analyze the institutional dimensions (regulative, normative and cultural-cognitive) that influence both opportunity and necessity entrepreneurship and their survival. Using data from the Panel Study of Entrepreneurial Dynamics (PSED II), which allows for a longitudinal study, we employ a binary logistic model and survival analysis. The main results show that the governmental support for entrepreneurship (regulative dimension) does not explain opportunity entrepreneurship. However, this dimension has a positive influence on firm survival. Based on our results, tailored policies and resources can be developed for each type of entrepreneurship (opportunity and necessity), taking into account institutional dimensions.

Keywords Institutional dimensions · Opportunity entrepreneurship · Necessity entrepreneurship · Survival · Exit

✉ David Urbano
david.urbano@uab.cat

Tatiana Lopez
tatiana.lopez@uab.cat

Claudia Alvarez
claudia.alvarez@tec.mx

[1] Department of Business and Centre for Entrepreneurship and Social Innovation Research (CREIS), Universitat Autònoma de Barcelona, 08193 - UAB Bellaterra Campus - Edifici Blanc (Cerdanyola del Vallès), Barcelona, Spain

[2] School of Management - Universidad EAFIT, Universidad EAFIT, Carrera 49 N° 7 Sur-50, Medellin, Colombia

[3] Tecnologico de Monterrey, EGADE Business School, Eugenio Garza Laguera & Rufino Tamayo, 66269 San Pedro Garza Garcia, Nuevo Leon, Mexico

Published online: 27 September 2025

JEL classification L26 · O43 · M13 · C41

1 Introduction

Literature suggests that opportunity-driven entrepreneurs are generally more successful than those motivated by necessity (Amit and Muller 1995; Caliendo and Kritikos 2010; Belda and Cabrer-Borrás 2018). Consequently, the entrepreneurial ecosystem often prioritizes supporting opportunity entrepreneurship. However, there are notable cases where necessity-driven entrepreneurship has led to significant success. For example, Whitney Wolfe Herd founded Bumble after losing her job and overcoming personal challenges, and Adi Dassler established Adidas following unemployment after World War I. These examples illustrate that businesses born out of necessity can achieve remarkable success. Nowadays, there are many similar cases of necessity-driven entrepreneurship with global visibility, such as Ashley Tyrner (Farmbox Direct), Hamdi Ulukaya (Chobani), and Angela Muhwezi-Hall and Deborah Gladney (QuickHire), all of whom launched successful ventures after facing unemployment or economic hardship. This distinction highlights the different motives that drive entrepreneurial ventures. Opportunity or pull entrepreneurship is defined as new business creation motivated by a potential opportunity (Amit and Muller 1995; Reynolds et al. 2005), and it is associated with new firms based on knowledge and innovation (Hessels et al. 2008). For its part, necessity or push entrepreneurship refers to the new venture initiated by the unemployed, which means those forced to become entrepreneurs because they cannot find a new job (Amit and Muller 1995).

Extant research has explored the differences between opportunity and necessity entrepreneurship in terms of the factors that influence each type of entrepreneurial activity across countries (Nikolaev et al. 2018; Boudreaux et al. 2019; Audretsch et al. 2021) and the survival determinants of opportunity and necessity-driven entrepreneurship (Belda and Cabrer-Borrás 2018; Cabrer-Borrás and Rico 2018). Building on this, the present study adopts the institutional approach, specifically, Scott's (1995) framework of institutional dimensions: regulative (rules and policies), normative (social values and norms), and cultural-cognitive (shared beliefs and individual perceptions). These dimensions influence how individuals perceive opportunities, respond to constraints, and mobilize resources, making them critical for analyzing both the type of entrepreneurial motivation and the likelihood of survival. Institutional dimensions help understand the context; they provide a broader perspective on the environmental conditions that go beyond discussing which type of entrepreneurship is better. Moreover, the institutional dimensions approach highlights the regulative and normative logic and considers the importance of cognitions in shaping entrepreneurial decisions (Johansson et al. 2021) and the entrepreneurial process (Alvarez et al. 2025).

Moreover, some authors affirm that opportunity entrepreneurs contribute more to growth than necessity entrepreneurs (Acs and Varga 2005; Wennekers et al. 2005), and this reasoning comes from the idea of entrepreneurs as individuals who promote new combinations and possibilities in the market, also called high-impact entrepreneurs (Acs 2010). For instance, Reynolds and Curtin (2008) presented that knowl-

edge-based entrepreneurship, related to opportunity entrepreneurship, adds value to the market; they argued that this new venture could transform an opportunity into a real business with higher growth expectations.

It is fundamental to acknowledge the coexistence of opportunity and necessity entrepreneurship within society, as well as the diverse pathways leading to firm performance (Kraus et al. 2018). Both forms of entrepreneurship are important due to their role in generating social value (Kraus et al. 2017) to drive innovation and economic prosperity (Boudreaux et al. 2019; Galindo-Martín et al. 2023) and reduce unemployment rates (Aparicio et al. 2016). These circumstances allow entrepreneurs and their family members to have the income to improve their living conditions and well-being (Amorós et al. 2021) and, in this sense, could reduce the chances of social crises. Also, both opportunity and necessity entrepreneurs are immersed in contexts with specific organizations, cultures, and ecosystems that must support them, and institutions matter when the individual chooses opportunity or necessity entrepreneurship (Audretsch et al. 2021). In this way, individuals can overcome the limitations of each type of entrepreneurial activity during the life cycle of the new business. So, overcoming the discussion of whether new businesses are better by opportunity or necessity is vital. In practice, many new ventures start because their founders cannot find a job (necessity), but in time, they become companies with high growth expectations and creators of new employment. Furthermore, partly because of this discussion, the conceptualization of necessity entrepreneurship is limited (Dencker et al. 2021; Weber et al. 2023).

To improve entrepreneurship support strategies for entrepreneurship by opportunity and necessity, it is necessary to find such differences in the environment at the regulation and social support level that influence the individual decision to start a new business. Furthermore, it is crucial to understand the influence of institutional dimensions on the closure of the new company. Business exit is a bigger problem in society when individuals put not only effort but also human and capital resources, and they must close their business because the performance is not expected, losing all the investment. The process of exiting a business has wide-reaching effects, not only on the founder but also on the company, its industry, and the broader economy. This has been a topic of study in the field of entrepreneurial exit (DeTienne and Wennberg 2016; Beynon et al. 2021) and family business (Widz and Kammerlander 2022; Freixanet et al. 2024). In this sense, the aim of the paper is twofold. On the one hand, to analyze the influence of institutional dimensions (regulative, normative and cultural-cognitive) in opportunity and necessity entrepreneurship; on the other hand, to study the relationship of the institutional dimensions with the survival of both types of entrepreneurship. Despite recent research, this remains a field that has received relatively little attention from scholars (Chowdhury et al. 2019). The complexity of reality makes it difficult to find the variables that influence these types of entrepreneurship. To advance scholarship on the institutional approach to understanding entrepreneurship, this paper offers three key contributions. First, it demonstrates that institutional dimensions exert distinct and sometimes opposing influences on opportunity versus necessity entrepreneurship, challenging the assumption that supportive institutions uniformly favor all entrepreneurial activity. Second, it extends the institutional perspective to include entrepreneurial survival as an outcome, moving beyond

the static analysis of entry to consider how institutions shape the sustainability of ventures over time. Third, the findings present nonlinear and even counterintuitive interactions between dimensions—for instance, how normative support may amplify overconfidence effects in high self-efficacy individuals, increasing the likelihood of failure. This points to a more complex institutional logic where "more support" does not always translate into "better outcomes," thus challenging prevailing policy narratives. Our results would enable stakeholders to deal with their problems more effectively and significantly when maximizing resources.

2 Conceptual framework

Entrepreneurial activity is shaped by the broader institutional environment in which it unfolds—an environment composed of formal rules, cultural norms, and shared beliefs that condition how individuals recognize and act upon opportunities (Welter 2011; Welter and Smallbone 2011; Bosma et al. 2018). This institutional context is particularly important when examining why and how individuals choose to pursue entrepreneurship, and under what conditions their ventures survive. Institutional dimensions, from Scott's (1995) perspective, have begun to be considered an important theoretical framework for explaining entrepreneurial activity from different points of view. For instance, to analyze entrepreneurial rates between countries (Alvarez et al. 2014), in some cases focusing on women entrepreneurship in different contexts (Yousafzai et al. 2015) or innovative and high-growth new ventures (Stenholm et al. 2013) and specific sectors, such as hospitality (Li et al. 2020). Poček et al. (2022) suggest that well-designed policies can cultivate cultural traits conducive to entrepreneurial activities. Likewise, the institutional dimensions provide a robust framework for showing differences between types of entrepreneurship, such as opportunity and necessity. García-Cabrera et al. (2020) show how differences in the regulative and normative institutions in the origin and host countries influence the opportunity and necessity of immigrant entrepreneurship. Based on this institutional perspective, we examine how the three dimensions—regulative, normative, and cultural-cognitive—differentially influence entrepreneurial motivation and survival outcomes. In what follows, we develop a set of hypotheses that articulate these relationships.

2.1 Institutional dimensions and entrepreneurial activity (necessity vs. opportunity)

Prior literature (Angulo-Guerrero et al. 2017; Boudreaux et al. 2019; Wei 2022) shows that opportunity entrepreneurship benefits from improvements in the regulative aspect, such as legal structure, security of property rights, regulation of credit, and business freedom. At the same time, Boudreaux et al. (2019) explain that fewer people will be forced to choose necessity entrepreneurship in societies with regulations that are favorable, such as higher levels of economic freedom. Those regulatory aspects in the economy refer to the regulative dimension, which contemplates the "laws, regulations and government policies that provide support for new businesses"

(Busenitz et al. 2000, p. 995). Angulo-Guerrero et al. (2017) propose that economic freedom encourages entrepreneurship motivated by opportunity; at the same time, this liberalization discourages entrepreneurship motivated by necessity. Those results are in line with those of Fuentelsaz et al. (2015), who present that opportunity entrepreneurship benefits from improving property rights, fiscal freedom, and business freedom, among other factors, while those factors damage necessity entrepreneurship. García-Cabrera et al. (2020) show how the differences between the regulative dimension in origin and host countries increase opportunity motivation in immigrant entrepreneurship. In contrast, some results do not follow the same line. Stenholm et al. (2013) found that the regulative environment, related to business freedom, matters very little in creating opportunities and high-growth new ventures. Lekovic and Maric (2017) propose that the availability of technology allows individuals to be confirmed as opportunity entrepreneurs, and entrepreneurial behavior results in high levels of innovation and business internationalization. Those results are in the same vein as Stenholm et al. (2013), who argue that the most critical factors for high-impact entrepreneurship are related to an institutional environment with access to knowledge and venture capital. Finally, in a recent study of the hospitality sector, Li et al. (2020) found that business freedom, related to the regulative dimension, influences opportunity entrepreneurs positively, while on necessity entrepreneurs in the same sector, the effect is negative. The prior literature leads us to the following hypothesis:

H1: The regulative dimension has a greater influence on opportunity entrepreneurship than necessity entrepreneurship.

When society has a favorable view of entrepreneurship and is concerned about taking risks, entrepreneurial activity becomes a viable option for individuals without stable employment. Likewise, individuals will be more likely to identify business opportunities when a community fosters risk-taking and creativity. The "degree to which a country's residents admire entrepreneurial activity and value creative and innovative thinking" corresponds to the normative dimension (Busenitz et al. 2000, p. 995). Previous research has found that the normative dimension, encompassing societal norms and cultural expectations, has a positive influence on entrepreneurial intentions (Bağış et al. 2024). Langevang et al.(2012) argue that the motivations and aspirations of entrepreneurs are related to "the socio-economic environment, social networks, family relations and position in the life course". The social and family networks presented by these authors are related to the normative dimension. In this order, we confirm that the normative dimension influences the decision to start a new business either by necessity or by opportunity. Cullen et al.(2014) found that cultural background plays a predominant role in forming opportunity entrepreneurship. Moreover, they found that higher levels of family support predict opportunity entrepreneurship, and this result is consistent in societies with developed and undeveloped educational systems. Ahsan et al.(2021) showed that opportunity entrepreneurs are more likely to overcome obstacles and advance their ventures when they perceive higher institutional support and actively utilize social and business networks. Furthermore, social norms and culture will affect opportunity entrepreneurship more than necessity entrepreneurship. Since this type of entrepreneur may have other options, and they will

only decide to start the new business if they feel the social environment is supportive, this includes acceptance from family, friends, and colleagues. This means entrepreneurial activities should be respected over a stable job in a large company. Thus, we hypothesize:

> H2: The normative dimension has a greater influence on opportunity entrepreneurship than necessity entrepreneurship.

In addition to the social assessment of entrepreneurship evident through the normative dimension, the start-up and success of a new business depend on the individual's capacity to envision the future and turn their expectations into reality despite the lack of present proof (Lekovic and Maric 2017). Prior research shows that confidence in one's skills promotes a positive effect of opportunity entrepreneurship on economic growth. Amine and Staub (2009) argue that improving business skills and technical knowledge (cultural-cognitive dimension) will increase opportunities for women entrepreneurship instead of necessity entrepreneurship in Africa. Those factors are associated with the cultural-cognitive dimension, which refers to the individual creation of meaning from shared conceptions (Scott 1995). In entrepreneurship research, this dimension is the "knowledge and skills possessed by the people in a country about establishing and operating a new business" (Busenitz et al. 2000, p. 995). Li et al. (2020) found that the individual perception of the opportunities in the market and the individual skills had positive and statistically significant effects on both opportunity and necessity entrepreneurship for the sample that contains different industries. As we mentioned before, this individual perception is built based on shared knowledge, which, in the framework of the institutional dimensions, refers to the cultural-cognitive dimension. Boudreaux et al. (2019) also found that entrepreneurs' self-efficacy, which refers to self-perceptions about the capabilities to run a new business and alertness to new opportunities, promotes opportunity entrepreneurship. If the cultural-cognitive dimension is strong, the probability of creating a new business does not depend only on the motivations (necessity or opportunity). First, the entrepreneur identifies an excellent opportunity in the market, but their actual job remains stable. It is necessary to have self-confidence in the skills and knowledge, as well as support from the family and society (normative dimension), in combination with the favorable regulations in the market (regulative dimension), to start a new business. Second, regarding the necessity entrepreneurs, when this individual is unemployed and has been searching for a job, this person does not have many options. Moreover, if an individual possesses a certain degree of self-confidence in their skills and knowledge, this combination will likely lead them to pursue self-employment. For instance, Naiki and Ogane (2022) showed that entrepreneurs who start a business out of necessity and have industry-specific experience face fewer fundraising challenges than those who pursue an opportunity-based venture without such experience. This challenges the paradigm that entrepreneurship out of necessity is less productive than entrepreneurship out of opportunity. Building on these insights, we hypothesize that the cultural-cognitive dimension is associated with both types of entrepreneurial activity. At the same time, we expect a positive influence in both cases; the mecha-

nisms through which cultural-cognitive factors operate may differ between opportunity and necessity entrepreneurship:

H3: The cultural-cognitive dimension has a positive influence on both necessity and opportunity entrepreneurship.

2.2 Survival of opportunity and necessity entrepreneurship

Several empirical studies have shown that the type of entrepreneurial motivation has significant implications for venture survival. Specifically, opportunity-driven businesses tend to exhibit higher survival rates than those initiated out of necessity. For example, Simon-Moya et al. (2016) show that necessity-driven ventures had a 34% higher risk of failure during periods of growth, and this risk increased to over 61% during periods of crisis compared to opportunity-driven ventures. This prevailing view is supported by evidence showing that necessity entrepreneurs often enter self-employment with limited resources and lower levels of human capital (Angulo-Guerrero et al. 2017; Calderon et al. 2017; Ferrin 2023; Karaivanov and Yindok 2022), financial assets (Brünjes and Revilla-Diez 2013; Liu and Huang 2016; Uddin et al. 2014), and social capital (Leporati et al. 2021; Wei et al. 2019) compared to opportunity-driven entrepreneurs. In turn, these limited resource endowments result in constrained capabilities, such as weaker strategic orientation, inadequate preparation, and restricted access to complementary resources (Stavroulakis and Reklitis 2008). Their ventures are frequently reactive responses to labour market exclusion rather than strategically planned initiatives, which can result in higher vulnerability to market fluctuations and institutional barriers (Caliendo and Kritikos 2010). Moreover, necessity-based firms tend to operate in more informal or saturated sectors with limited opportunities for scalability or innovation, which further reduces their likelihood of long-term survival (Amorós et al. 2021). Opportunity entrepreneurs, on the other hand, have high levels of human, financial and social resources, which enable them to proactively identify viable markets, strategically plan their ventures, and operate in sectors with growth potential -factors that are positively associated with business continuity (Block and Sandner 2009; Stenholm et al. 2013). Nevertheless, it is important to highlight that there is some literature, such as Bourlès and Cozarenco (2018), that found that the motivation to start the business does not influence survival. In fact, in certain contexts, necessity-driven ventures may even exhibit greater longevity than their opportunity-driven counterparts. For example, necessity-driven academic spinoffs in Italy have been associated with higher survival profiles and rates compared to opportunity-based spinoffs (Civera et al. 2020). Likewise, firms founded by unemployed necessity entrepreneurs in Germany demonstrated relatively high survival rates, with two-thirds remaining active during the first four years (Dencker et al. 2021). Authors such as Dencker et al. (2021) have highlighted the differences and nuances within necessity entrepreneurship. While the evidence shows greater complexity and heterogeneity in survival rates, the overall trend suggests that opportunity-driven entrepreneurship tends to achieve higher survival rates than those driven by necessity. Based on this, we suggest the following hypothesis:

H4: The survival probability is higher for opportunity entrepreneurship than for necessity entrepreneurship.

2.3 Institutional dimensions and new business survival

The cultural-cognitive dimension has emerged as a key determinant in shaping entrepreneurial phenomena. Empirical studies have shown that this dimension explains the greatest variation in early-stage entrepreneurship (Alvarez et al. 2025) and plays a dominant role in funding decision-making processes (Johansson et al. 2021). Despite this evidence, the role of the individual has been undervalued when explaining the variables that affect the survival of new companies. In fact, most research has focused on financial indicators (Fuertes-Callén et al. 2022; Wang and Guedes 2024). Nevertheless, the cultural-cognitive dimension emerges as a critical driver of new firm survival, given its proximity to action. Regulatory and normative dimensions shape outcomes only after they pass through the entrepreneur's cultural-cognitive lens (Scott 2014).

Scott (2008, p. 429) recognizes that although the three institutional dimensions coexist in practice, the cultural-cognitive dimension provides the deepest foundation for institutional forms, providing the "infrastructure on which not only beliefs, but norms and rules rest". This cultural-cognitive lens comprises individual characteristics such as educational background, risk aversion, and other cultural schemas that guide behavior almost on autopilot.

Regarding educational background, Cauchie and Vaillant (2016) found a positive relationship between specific training and general education, and new business survival. Those results confirm that the specific education in entrepreneurship affects the cognitive dimension, making those who receive it have more abilities and, therefore, are more likely to survive. Also, Millán et al. (2014) found that highly qualified individuals are more likely to survive, but only if they consider entrepreneurs who hire employees. As we mentioned, this type of entrepreneur is more associated with high-growth new business or opportunity entrepreneurs, and in this sense, we found support from Stavroulakis and Reklitis (2008). They show more survival propensity among opportunity entrepreneurs compared to necessity entrepreneurs. The individual characteristics related to deficient education and low business skills are the factors that explain this situation. Bourlès and Cozarenco (2018) affirm that necessity entrepreneurs have more loan repayment difficulties than opportunity entrepreneurs.

"Being a true entrepreneurial success depends on the individual's cognitive ability to see things in a way that would later prove true, even if you currently cannot be proven. This approach generates the basic aim, which seeks to uphold the fact that the availability of technology allows individuals to be confirmed as opportunity entrepreneurs" (Lekovic and Maric 2017). An opportunity venture is more likely to leave the market if it does not have enough incentives from governments or other formal organizations. Among other factors, there is no obligation to continue with the new company if the regulation is not strong enough to support this type of venture or if there are insufficient resources to develop the idea.

Concerning risk aversion, Howell (2015) shows that it affects the survival of new businesses; while cautious entrepreneurs are found to survive longer, risky entrepre-

neurs are less efficient and less likely to survive. For their part, Riva and Lucchini (2015) find that migrant owners have certain unique individual aspects (or cultural schemas in Scott's terminology) that translate into lower failure rates than their native counterparts.

While the cultural-cognitive dimension plays a central role in a new business's survival, its effect is conditioned by the regulative and normative dimensions. In the cultural-cognitive dimension, compliance is based on taken-for-grantedness shared understandings (Scott 2014, p. 60), which makes other types of behavior "inconceivable" (Phillips and Malhotra 2008). However, the strength of this internalized belief depends on the broader institutional environment. When the normative dimension legitimizes the behavior (Suchman 1995) and the regulatory dimension provides stable support (Aidis et al. 2008), cultural-cognitive schemas are more easily translated into actions for venture survival. On the other hand, in institutional environments lacking normative support or regulatory clarity, the influence of cognitive frames may be constrained, thereby reducing their positive effect on entrepreneurial survival. The lack of support from social networks and a discouraging institutional environment also influence survival in different sectors (Stavroulakis and Reklitis 2008; Francois and Belarouci 2022). The type of community where the new venture is created determines survival; entrepreneurs in rural communities tend to have higher survival rates than urban ones (Deller and Conroy 2017). Finally, other institutional aspects related to the regulative dimension, such as economic freedom, also moderate the relationship between the cultural-cognitive dimension, measured by fear of failure and the individual confidence in their skills and capabilities to run a new venture (Boudreaux et al. 2019).

These results provide suggestive evidence that not only individual channels' effort to produce entrepreneurial activities but also affect the extent to which individuals' socio-cognitive resources are likely to mobilize and lead to high-growth entrepreneurship (Boudreaux et al. 2019). In other studies, Tsvetkova et al. (2014) consider a broader regulative aspect as they are the activity of metropolitan patents, and the authors found that the patent activity positively influences the survival of new firms (with more than four employees). Therefore, we suggest the following hypotheses:

H5a: The cultural cognitive dimension is more important to entrepreneurship survival than the regulative and normative dimensions.

H5b: The regulative dimension strengthens the relationship between the cultural-cognitive dimension and the probability of entrepreneurship survival.

H5c: The normative dimension strengthens the relationship between the cultural-cognitive dimension and the probability of entrepreneurship survival.

Figure 1 presents the theoretical model and the main hypothesized relationships explored in this study, including the expected effects of institutional dimensions on entrepreneurial type and venture survival.

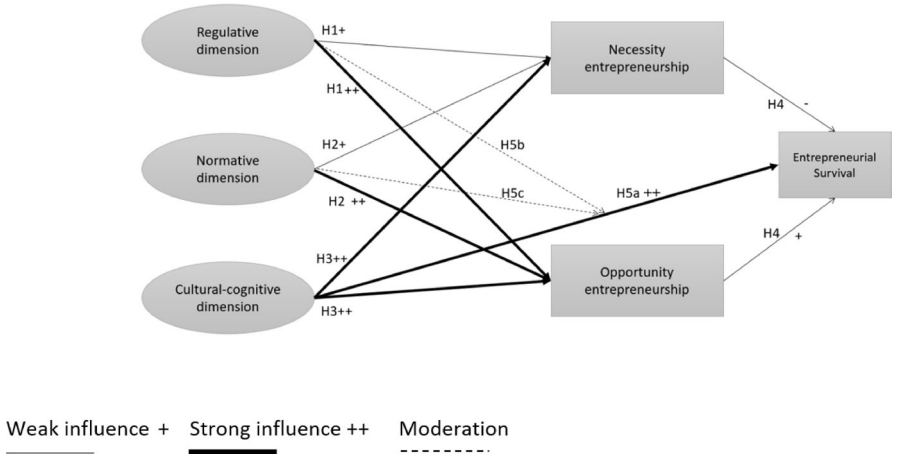

Fig. 1 Institutional Dimensions in Necessity and Opportunity Entrepreneurship and New Business Survival Model

3 Methodology

To test the hypotheses, we conducted two analyses. First, we estimated a binary logistic regression model using a panel data approach to analyze the influence of institutional dimensions on opportunity and necessity entrepreneurship (H1, H2, and H3). This model accounts for the binary nature of the dependent variable (1 = opportunity entrepreneurs; 0 = necessity entrepreneurs). The panel data model collects the longitudinal characteristics of the sample and allows us to control for individual heterogeneity. Both random- and fixed-effects models were estimated, and the Hausman test was applied to determine the appropriate specification. The test indicated that the random-effects estimator was preferred, as the difference in coefficients was not systematic ($\chi^2 = 3.41$, $p = 0.49$). Accordingly, we did not reject the null hypothesis that the unobserved individual effects are uncorrelated with the regressors, which supports the use of the random-effects model. Second, we employed a survival analysis to examine the influence of the type of new business motivation (opportunity and necessity- H4) and institutional dimensions on the survival of new businesses (H5a, H5b, and H5c).

Thus, we study the time duration until an event happens, in this case, the exit of the new firms in the sample. Specifically, we use the semi-parametric Cox proportional hazards model (Cox 1972) and the Parametric Survival Model. The Cox hazard model is semi-parametric, as it consists of both non-parametric and parametric components. The non-parametric representation is given by the baseline hazard function, which is a non-negative function without a common specification for all subjects in the sample. The parametric part is expressed by an exponential function, where the coefficients are parameters to be estimated by the maximization of the function of partial likelihood (Cox 1972); this function only considers the observations where the exit of the new business happens, which is called partial. Later, all the observations are considered to calculate the probability of survival. We selected the Cox

model over alternatives such as the Accelerated Failure Time (AFT) model due to its flexibility and robustness when analyzing multiple covariates without requiring a specific distribution for survival times. In the model, the risk proportionality is a vital assumption. Thus, considering the same vector of variables for two subjects, the risk ratio is constant over time. Graphically, this assumption can be proved through the parallel separation of the logarithmic transformation of the survival curves of each category. To validate this assumption in our study, we performed diagnostic tests based on Schoenfeld residuals, which did not indicate significant violations. The residuals chart only includes the observations relevant to the event, in this case, the exit or non-survival of the new firms in the sample. The null hypothesis establishes that the risks of the population are proportional, at least against the hypothesis that one population does not present a proportional hazard to the others.

3.1 Sample

We test our hypotheses on a sample of 477 new businesses tracked in the Panel Study of Entrepreneurial Dynamics (PSED II). This nationally representative U.S. study provides high-quality longitudinal data on the business start-up process (Reynolds and Curtin 2008). This dataset includes detailed information on entrepreneurial activities, stakeholder involvement, firm characteristics, and the demographics of nascent entrepreneurs. The initial interviews were conducted between 2005 and 2006, with up to six annual follow-ups through 2011. One of the key strengths of the PSED II is its panel design, which enables the analysis of venture survival over time. After selecting cases with complete data for the variables of interest, our final panel comprises 3,792 observations across the six waves, corresponding to 477 unique businesses.

3.2 Operationalization of institutional dimensions and entrepreneurship

The study includes two dependent variables. First, *Entrepreneurial activity* distinguishes between *Opportunity entrepreneurship* and *Necessity entrepreneurship*. This classification follows the Global Entrepreneurship Monitor (GEM) framework and is consistent with prior research (Amorós et al. 2019). Second, *Entrepreneurship survival* captures the time between the respondent's initial interview and the recorded *disengagement of the new business*. This time-to-event variable enables us to analyze entrepreneurial persistence using longitudinal data, following the approach proposed by Cabrer-Borrás and Rico (2018).

To measure the institutional dimensions in this study, we used established proxies aligned with prior literature. For the regulative dimension, we included two items: *Government support* and *Financial support*. These proxies reflect perceptions of the local institutional environment regarding support for new businesses and have been widely used in previous research (Díez-Martín et al. 2016; Bosma et al. 2018; García-Cabrera et al. 2020; Bağış et al. 2023; Beynon et al. 2021).

The normative dimension was captured using eight variables regarding social norms and culture that support entrepreneurship: *Support for success*, *Risk-taking*, *Creativity*, *Responsibility*, *Support for young entrepreneurs*, *Support from groups*, *and the Presence of Role Models among friends*, *relatives*, *and parents*. These items

assess shared cultural values and societal encouragement toward entrepreneurship and have been operationalized similarly in several studies (Busenitz et al. 2000; Torkkeli and Fuerst 2018; Demiray et al. 2021; Handrito et al. 2023).

Regarding the cultural-cognitive dimension, we used *Know entrepreneur*, *Previous experience*, *Skills self-confidence*, *Entrepreneur goals*, *Effort self-confidence*, and *Risk aversion*. These proxies reflect individual-level cognitive and experiential resources shared in the society, relevant to entrepreneurial action. Their validity is supported by prior research (Stenholm et al. 2013; Urbano and Alvarez 2014; Amorós et al. 2019; Ghazali et al. 2021; Alvarez et al. 2025).

Table 1 shows the description of the variables used in the empirical study.

3.3 Descriptive analysis of the data

Table 2 presents the pairwise correlations between the variables in our panel logit model and the descriptive statistics of the number of observations in each variable, the mean and the standard deviation.

To assess potential multicollinearity, we calculated Variance Inflation Factors (VIFs) for all explanatory variables using a pooled OLS model. The results show that all VIF values fall well below the conservative threshold of 5, with most variables below 2. The highest VIF observed corresponds to regional dummies, with a maximum of 3.40. These values suggest that no problematic collinearity is present among the independent variables, and multicollinearity is not likely to bias the estimated coefficients in the logit models.

The correlation matrix revealed moderate correlations between some variables within the normative institutional dimension, particularly between *Responsibility* (5 N) and *Support for Young Entrepreneurs* (6 N), with a coefficient of 0.641. While this level of association does not pose multicollinearity issues (as confirmed by the VIF analysis), we acknowledge that this correlation is expected, as both variables capture aspects of the same underlying construct.

As we mentioned, to verify the proportional hazards assumption in the Cox model, we conducted Schoenfeld residual tests for each covariate and a global test. All individual p-values were above the 0.05 threshold, and the global test was not significant ($\chi^2 = 6.77$, df = 10, $p = 0.75$). These results confirm that the assumption of proportional hazards is satisfied, supporting the validity of our survival model specification.

4 Empirical results

4.1 Panel logistic regression

Firstly, a binary logistic model on panel data is specified and estimated, in which the probability of opportunity and necessity entrepreneurship is determined by the three institutional dimensions: regulative, normative, and cultural-cognitive, measured through different proxies.

Table 3 shows the estimation of three different models. The first model was estimated using the variables of control, gender, age, sector of the new company, region,

Table 1 Description of the variables

Variable	Proxy	Description	Source
Dependent variables			
Entrepreneurial activity	Necessity and Opportunity Entrepreneurship	1. Opportunity entrepreneurship 0. Necessity entrepreneurship	(Amorós et al. 2019)
	Entrepreneurship survival	Time until the event occurs. The time between the first interview and the disengagement of the new business	(Cabrer-Borrás and Rico 2018)
Independent Variables			
Regulative dimension	Government support	State and local governments in your community provide good support for those starting (new) businesses. Five-point scale (1 = strongly disagree, 5 = strongly agree)	(Díez-Martín et al. 2016; Bosma et al. 2018; García-Cabrera et al. 2020; Beynon et al. 2021; Bağış et al. 2024)
	Financial support	Bankers and other investors in your community go out of their way to help (new) businesses get started. Five-point scale (1 = strongly disagree, 5 = strongly agree)	
Normative dimension	Support for success	The social norms and culture of the community where you live are supportive of success achieved through one's efforts. Five-point scale (1 = strongly disagree, 5 = strongly agree)	(Busenitz et al. 2000; Torkkeli and Fuerst 2018; Demiray et al. 2021; Handrito et al. 2023)
	Risk-taking	The social norms and culture of your community encourage entrepreneurial risk-taking. Five-point scale (1 = strongly disagree, 5 = strongly agree)	
	Creativity	The social norms and culture of your community encourage creativity and innovativeness. Five-point scale (1 = strongly disagree, 5 = strongly agree)	
	Responsibility	The social norms and culture of your community emphasize the responsibility that the individual has in managing his or her own life. Five-point scale (1 = strongly disagree, 5 = strongly agree)	
	Support for young entrepreneurs	Young people in your community are encouraged to be independent and start their businesses. Five-point scale (1 = strongly disagree, 5 = strongly agree)	
	Support from groups	Community groups provide good support for those starting (new) businesses. Five-point scale (1 = strongly disagree, 5 = strongly agree)	
	Role models - friends	Many of your friends have started (new) businesses. Five-point scale (1 = strongly disagree, 5 = strongly agree)	
	Role models -relatives	Many of your relatives have started (new) businesses. Five-point scale (1 = strongly disagree, 5 = strongly agree)	

Table 1 (continued)

Variable	Proxy	Description	Source
Cultural-cognitive dimension	Know entrepreneur	Do you know someone personally who started a business in the past two years?	(Stenholm et al. 2013; Urbano and Alvarez 2014; Amorós et al. 2019)
	Previous experience	How many years of work experience have you had in the industry where this (new) business will compete? (number of years)	(Ghazali et al. 2021)
	Skills self-confidence	Overall, my skills and abilities will help me start this new business. A five-point scale was used (1 = strongly disagree, 5 = strongly agree)	(Busenitz et al. 2000; Torkkeli and Fuerst 2018; Demiray et al. 2021; Handrito et al. 2023; Alvarez et al. 2025)
	Entrepreneur goals	If I start this new business, it will help me achieve other important goals in my life. (1 = strongly disagree, 5 = strongly agree)	
	Effort Self-confidence	I am confident I can put in the effort needed to start this new business. (1 = strongly disagree, 5 = strongly agree)	
	Risk aversion	I enjoy the uncertainty of going into a new situation without knowing what might happen. A five-point scale was used (1 = strongly disagree, 5 = strongly agree)	(Alvarez and Urbano 2012; Alvarez et al. 2025)
Interaction between Institutional dimensions	Skills self-confidence x Financial support	The interaction term between Skills self-confidence and Financial support (cultural-cognitive and regulative)	
	Skills self-confidence x Support for success	The interaction term between Skills self-confidence and Support for success (cultural-cognitive and normative)	
Control variables	Sector	What kind of business are you starting? NAICS 6-DIGIT CODES	
	Age	Years at the moment of answering the interview	(Cabrer-Borrás and Rico 2018)
	Gender	Are you male or female?	
	Education level	What is the highest level of education you have completed? Up to eighth grade – Some high school High school degree – Technical or vocational degree Some college – Community college degree Bachelor's degree – Some graduate training Master's degree - Law, MD, PhD, EDD, degree	
	Entrepreneurial parents	Did your parents ever work for themselves or run their businesses, alone or together?	
	Region	New England - Middle Atlantic East North Central -West North Central South Atlantic - East South Central West South Central – Mountain -Pacific	

and level of education. Neither the sector, nor the region is statistically significant in explaining entrepreneurship by opportunity compared to entrepreneurship by necessity. Age is negatively and significantly associated with opportunity entrepreneurship ($\beta = -0.025$, $p<0.01$), suggesting that older individuals are less likely to engage in opportunity-driven ventures compared to necessity-driven ones. Gender is statistically significant ($\beta = -0.669$, $p<0.05$); men are more likely to become entrepreneurs by necessity than by opportunity compared to women. Some levels of education explain opportunity compared to necessity entrepreneurship.

Table 3 presents the results of the panel logit models analyzing the determinants of opportunity versus necessity entrepreneurship across three model specifications. The regulative dimension does not exhibit a statistically significant effect on the likelihood of opportunity entrepreneurship. However, in Model 3, Financial support shows a negative and marginally significant association ($\beta = -0.476$, $p<0.1$), suggesting a potential inverse relationship between perceived financial support and the likelihood of being an opportunity entrepreneur. These results do not support H1.

Regarding the normative dimension, two proxies are consistently and significantly associated with the outcome. Social norms supporting success ($\beta = -0.426$, $p<0.01$ in M3) and social norms encouraging risk-taking ($\beta = -0.295$, $p<0.05$) are both negatively associated with opportunity entrepreneurship. These findings indicate that in environments where success and risk-taking are culturally valued, individuals are more likely to engage in necessity rather than opportunity entrepreneurship. These results do not support H2.

To test H3, we considered different proxies to measure the cultural-cognitive dimension, such as to know an entrepreneur, years of experience in the industry, the perception that entrepreneurship helps to achieve goals, and the individual self-confidence to put the effort needed into the new business. The results show that none of these variables are associated with a higher probability of opportunity entrepreneurship relative to necessity entrepreneurship. Most proxies exhibit a negative and statistically significant association with opportunity entrepreneurship, suggesting that these cultural-cognitive proxies may be more closely related to necessity-driven entrepreneurial activity within our sample.

In Model 3, we also tested the interaction between the cultural-cognitive and regulative dimensions, specifically between effort self-confidence and financial support. The interaction term is positive and marginally significant ($\beta = 0.231$, $p<0.1$), suggesting that higher self-confidence may moderate the negative effect of financial support on the likelihood of being an opportunity entrepreneur. Figure 2 presents the predicted probability of being an opportunity entrepreneur as a function of perceived Financial Support (regulative dimension), conditional on three levels of effort self-confidence (cultural-cognitive dimension): low, medium, and high. Across all effort self-confidence levels, the plot reveals a negative slope, indicating that higher perceived financial support is associated with a lower likelihood of opportunity entrepreneurship relative to necessity entrepreneurship. However, the interaction pattern suggests that this negative association is less pronounced among individuals with higher effort self-confidence. For those with medium or high effort self-confidence, the decline in predicted probability is more moderate, pointing to a buffering or moderating effect: effort self-confidence may mitigate the potentially discouraging influ-

Table 2 Correlation matrix and descriptive statistics

Variables	*N*	Mean	Std Dev	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Necessity/ Opportunity				1.000							
(2R) Government support	4155	2.97	1.29	0.004	1.000						
(3R) Financial support	4155	3.22	1.30	-0.058*	0.396*	1.000					
(4 N) Support for success	4155	2.171	1.063	-0.094*	0.209*	0.211*	1.000				
(5 N) Risk-taking	4155	2.395	1.152	-0.061*	0.239*	0.185*	0.528*	1.000			
(6 N) Creativity	4155	2.287	1.096	-0.033*	0.239*	0.219*	0.511*	0.641*	1.000		
(7 N) Responsibility	4155	2.026	0.938	-0.031*	0.189*	0.178*	0.464*	0.429*	0.486*	1.000	
(8 N) Support for young entrepreneurs	4155	2.873	1.308	-0.027*	0.272*	0.255*	0.366*	0.451*	0.433*	0.344*	1.000
(9 N) Support from groups	4155	2.724	1.206	-0.015	0.388*	0.368*	0.225*	0.323*	0.303*	0.258*	0.355*
(10 N) Role models - friends	4155	3.044	1.186	-0.044*	0.061*	0.071*	0.176*	0.203*	0.218*	0.174*	0.202*
(11 N) Role models - relatives	4155	3.208	1.204	-0.030*	0.095*	0.074*	0.130*	0.141*	0.143*	0.106*	0.177*
(12 C) Previous experience	4269	10.748	12.576	-0.016	0.010	-0.014	0.053*	0.038*	0.022	0.036*	0.089*
(13 C) Skills self-confidence	4269	1.494	0.613	-0.039*	0.012	0.001	0.058*	0.078*	0.076*	0.041*	0.036*
(14 C) Entrepreneur goals	4269	1.569	0.776	-0.032*	0.029*	0.006	0.052*	0.115*	0.083*	0.060*	0.022

Table 2 (continued)

Variables	*N*	Mean	Std Dev	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(15 C) Risk aversion	4269	2.812	1.195	-0.000	0.017	0.010	-0.008	0.029*	0.033*	0.031*	0.040*
(16 C) Effort self-confidence	4269	1.439	0.567	-0.053*	0.080*	0.050*	0.033*	0.038*	0.046*	0.040*	0.050*
Variables	*N*	Mean	Std Dev	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(9 N) Support from groups	4155	2.724	1.206	1.000							
(10 N) Role models friends	4155	3.044	1.186	0.100*	1.000						
(11 N) Role models relatives	4155	3.208	1.204	0.082*	0.297*	1.000					
(12 C) Previous experience	4269	10.748	12.576	0.052*	-0.025	0.041*	1.000				
(13 C) Skills self-confidence	4269	1.494	0.613	0.040*	0.059*	0.092*	-0.144*	1.000			
(14 C) Entrepreneur goals	4269	1.569	0.776	0.061*	0.107*	0.085*	-0.251*	0.487*	1.000		
(15 C) Risk aversion	4269	2.812	1.195	0.033*	0.086*	0.025	0.012	0.103*	0.126*	1.000	
(16 C) Effort self-confidence	4269	1.439	0.567	0.039*	0.024	0.063*	-0.068*	0.480*	0.377*	0.086*	1.000

*Shows significance at the 90% level

ence of external financial support. Although confidence intervals overlap, indicating statistically modest differences, the visual trend aligns with the marginally significant interaction term found in the regression model ($p<0.1$). Overall, the figure supports the idea that cultural-cognitive attributes, such as self-confidence, play a meaningful role in how individuals respond to institutional conditions.

Regarding control variables, results show that if the level of education is a bachelor's ($p<0.1$), master's ($p<0.05$) or postgraduate degree ($p<0.05$), the probability of opportunity entrepreneurship increases in comparison to necessity entrepreneurship.

Table 3 Panel logit model

Variables	Operationalization	(1)	(2)	(3)
		M1	M2	M3
Dependent	Opportunity vs. Necessity			
	Government support		0.062	0.063
			(0.131)	(0.131)
	Financial support		-0.111	-0.476*
			(0.106)	(0.248)
Normative dimension	Support for success		-0.447***	-0.426***
			(0.139)	(0.139)
	Risk-taking		-0.279**	-0.295**
			(0.140)	(0.140)
	Support for young entrepreneurs		0.165	0.161
			(0.128)	(0.127)
	Creativity		0.101	0.103
			(0.174)	(0.173)
	Responsibility		-0.025	-0.020
			(0.168)	(0.168)
	Support from groups		0.049	0.062
			(0.131)	(0.129)
	Role models - friends		-0.174	-0.168
			(0.125)	(0.124)
	Role models - relatives		0.035	0.043
			(0.133)	(0.133)
Cultural-cognitive dimension	Know entrepreneur		-0.240***	-0.241***
			(0.075)	(0.075)
	Previous experience		-0.022**	-0.022**
			(0.011)	(0.011)
	Effort self-confidence		-0.501*	-1.296**
			(0.283)	(0.608)
	Entrepreneur goals		-0.353*	-0.367**
			(0.187)	(0.187)
	Risk aversion		-0.020	-0.015
			(0.125)	(0.125)
Control variables	Age	-0.024***	-0.018***	-0.019***
		(0.009)	(0.011)	(0.011)
	Gender	-0.668*	-0.672*	-0.679*
		(0.292)	(0.315)	(0.316)
	Education level. Some school			
	High school degree	2.816	3.856	3.806
		(3.190)	(3.307)	(3.316)
	Technical or vocational degree	4.206	4.984	4.890
		(3.129)	(3.343)	(3.351)
	Some college	5.607*	5.168*	5.125*
		(3.156)	(3.308)	(3.317)
	Community college degree	5.815*	5.070	5.036
		(3.127)	(3.357)	(3.365)
	Bachelor's degree	5.663*	5.845*	5.817*
		(3.167)	(3.313)	(3.321)
	Some graduate training	6.484**	4.584	4.556
		(3.131)	(3.375)	(3.383)
	Master's degree	5.476*	6.885**	6.841**
		(3.189)	(3.376)	(3.382)
	Law, MD, PhD, EDD, degree	7.797 ***	6.799**	6.822**
		(3.187)	(3.418)	(3.425)
	Entrepreneurial parents	0.929***	0.825***	0.805***
		(0.279)	(0.299)	(0.302)
Interaction between institutional dimensions	Effort self-confidence X Financial support (cultural-cognitive and regulative)			0.240*
				(0.145)

Table 3 (continued)

Variables	Operationalization	(1)	(2)	(3)
		M1	M2	M3
	Constant	6.578***	3.655	3.258
		(0.835)	(3.346)	(3.454)
	ln(σ²u)	2.929***	2.862***	2.852***
		-0.16	-0.158	-0.159
	Observations	3792	3792	3792
	ρ (intra-class corr.)	0.850	0.839	0.840

Standard errors in parentheses * $p<0.1$, ** $p<0.05$, *** $p<0.01$

4.2 Survival analysis

As we mentioned before, after the binary logistic model, we conducted a survival analysis in order to test the hypotheses H4, H5a, H5b, and H5c related to the influence of the type of motivation (opportunity and necessity entrepreneurship) and institutional dimensions on entrepreneurial activity persistence. As robustness checks for the obtained results, we measured the event of failure and included different control variables. The checks yielded consistent results.

For the non-parametric analysis, in Fig. 3, we plot smoothed hazard estimates over time for the two types of entrepreneurs according to their motives for starting the business. Due to the curves following a parallel trajectory, the hazard rate is proportional over time, and the Cox proportional hazard model is adequate (Cleves et al. 2016).

Using the Kaplan–Meier (KM) estimator, we calculate the unconditional probability of an entrepreneur surviving beyond time. Figure 4 compares the estimated survivor function of opportunity and necessity entrepreneurs without controlling for differences in their observed and unobserved characteristics. The curves show minimal divergence, and the difference is not statistically significant according to the log-rank test ($\chi^2 = 0.57$, $p=0.448$). Based on this result, we do not find empirical support for Hypothesis 4, as the type of entrepreneurial motivation does not appear to significantly influence venture survival.

Following the analysis of entrepreneurial motivation and survival (H4), we now turn to examine how institutional dimensions influence survival outcomes more broadly. Hypotheses H5a, H5b, and H5c explore the direct effects of regulative and normative support, as well as their interaction with cultural-cognitive traits, on the probability of venture survival.

Table 4 shows how institutional dimensions influence the survival of the new firms, independent of the type of entrepreneurship. Although the regulative dimension does not influence the type of entrepreneurship, regarding H5a, the positive governmental support for entrepreneurship has a positive influence on the survival of the firm (disengagement is less likely because of the negative coefficient). This result is statistically significant, with a confidence of 99%. Although there is a counterintuitive result with the support of the financial system, which is that when this kind of support is higher, the likelihood of the new firm disengaging increases; this result is also statistically significant at 95% confidence. Regarding H5b, we found that when individuals rely on their entrepreneurial effort (Effort self-confidence) and there is a culture that supports success, the probability of the new firm surviving decreases, and the result

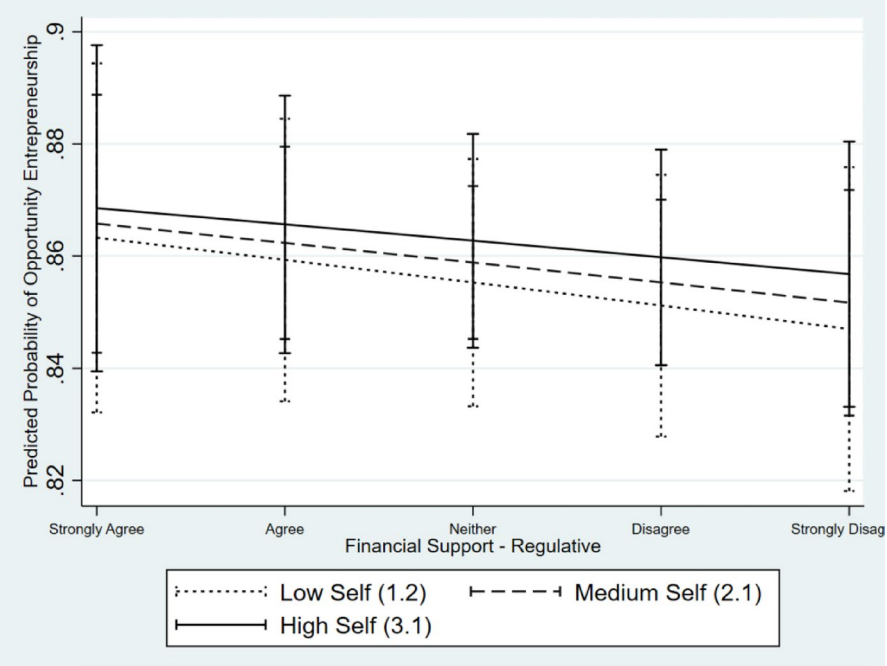

Fig. 2 Predicted Probability of Opportunity Entrepreneurship by Financial Support and Effort Self-confidence Levels

is statistically significant ($p<0.01$), which does not support H5b. Finally, empirical evidence supports the H5c after running different models of interaction between cultural-cognitive and regulative dimensions proxies. We found that the probability of disengagement decreases with 90% confidence when the individual's effort into the new company is supported by a financial system favorable to entrepreneurship.

The global test of the proportional-hazards assumption in Table 5 is not statistically significant. Therefore, we do not reject the assumption of proportional hazards. It means there is no evidence that the proportional-hazards assumption has been violated; consequently, survival analysis is adequate for the overall model.

5 Discussion

The regulative dimension does not exhibit the expected positive association with opportunity entrepreneurship, contrary to prior studies (Fuentelsaz et al. 2015; Angulo-Guerrero et al. 2017). This result warrants careful interpretation. One plausible explanation lies in the limited variance of perceived regulatory conditions within the PSED II dataset. Since the sample comprises nascent entrepreneurs across all 50 U.S. states, embedded within a largely uniform federal legal framework, individual assessments of government support, legal clarity, or bureaucratic burden tend to cluster around consistently high values, standard deviation <0.6 on a five-point scale (Reynolds and Curtin 2008). This interpretation is consistent with previous analyses

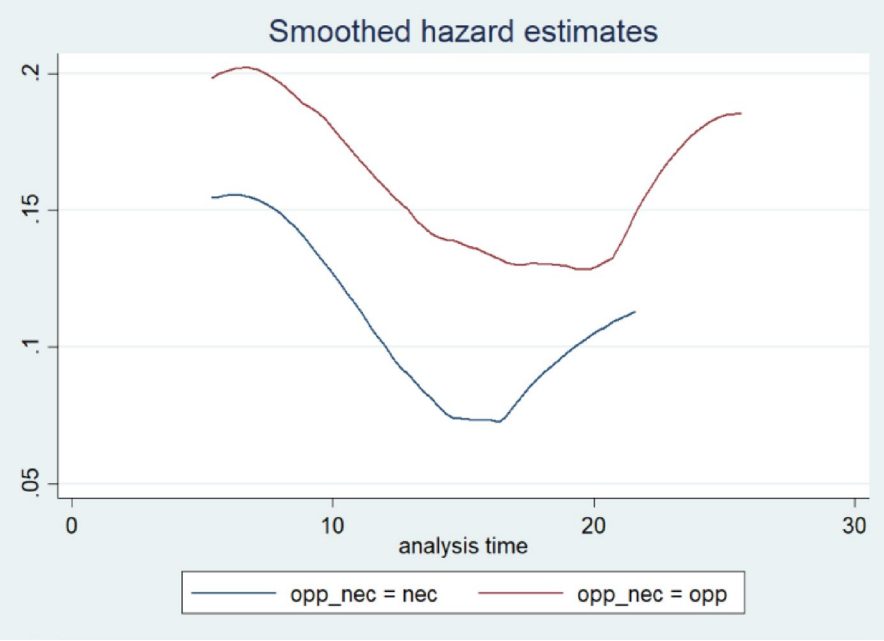

Fig. 3 Smoothed hazard estimates for the new business according to the type of motivation.

using the same data, which found that perceived regulatory barriers were not significantly associated with venture continuation or success (Kwapisz 2019). In contrast, studies that do report a positive influence of the regulative dimension typically draw on international datasets, such as the Country Institutional Profiles applied across multiple OECD economies (Busenitz et al. 2000) or various GEM panel studies (Stenholm et al. 2013; Amorós et al. 2019), where institutional heterogeneity is much greater. In environments where the baseline legal infrastructure is already highly supportive, as in the U.S. context, subtle differences in regulatory perception may have limited salience. Under such conditions, normative and cultural-cognitive dimensions appear to play a more decisive role in shaping opportunity recognition. Nonetheless, previous research suggests that specific regulations can shape entrepreneurial types (Coeurderoy and Murray 2008). For example, in the case of the hospitality sector, the regulative dimension positively influences opportunity entrepreneurs but negatively affects necessity entrepreneurs (Li et al. 2020). Regarding immigrant entrepreneurship, the regulative dimension has a negative effect on opportunity entrepreneurship (García-Cabrera et al. 2020). These findings highlight the importance of conducting more targeted studies that examine how regulatory frameworks affect different sectors and minority groups.

Additionally, our results show a negative effect of financial support on firm survival. This counterintuitive outcome suggests that public or private financial aid, when not complemented by strategic guidance or capacity-building mechanisms, may lead to overdependence or inefficient resource use. In this sense, future research should broaden the operational scope of the regulative dimension to include not only

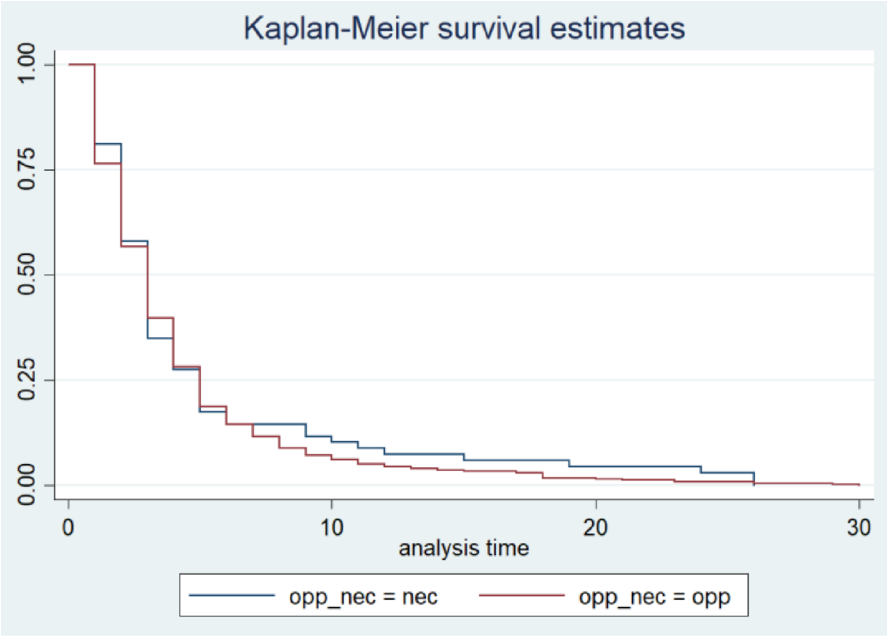

Fig. 4 Estimated levels of survival according to the type of motivation, using Kaplan-Meier

entrepreneurship support from government and financial support, but also the availability of new technologies (Lekovic and Maric 2017; Johansson et al. 2021), which are often accessed through venture capital and knowledge exchange (Stenholm et al. 2013; Naiki and Ogane 2022). These elements can enhance the effectiveness of financial assistance by increasing the strategic capabilities of new ventures. For instance, policy interventions may be more impactful when embedded in broader innovation ecosystems that promote triple helix collaboration among governments, firms, and universities. Such integrated approaches can reinforce the long-term sustainability of both opportunity and necessity entrepreneurs (Wurth et al. 2022), enabling, for instance, the evolution of ex-ante necessity entrepreneurs into opportunity-driven profiles over time (Bourlès and Cozarenco 2018, p. 951).

Previous literature considered education as a proxy of informal institutions to explain entrepreneurship (Schillo et al. 2016) and entrepreneurship survival (Cabrer-Borrás and Rico 2018). In this study, it could be considered a proxy of the cultural-cognitive dimension. Although we analyze this variable as a control, it is not an institution directly related to entrepreneurship. However, the results related to the influence of each educational level on the type of entrepreneurial activity and survival are essential because of their practical implications. One of the most remarkable results when comparing the two models is that the level of education that influences the type of entrepreneurship differs from the type of education that is statistically significant in explaining the survival function.

Table 4 Survival analysis and institutional dimensions

Variables	Operationalisation	(1)	(2)	(3)
		M1	M2	M3
Independent	Opportunity/Necessity	0.074		
		(0.162)		
	Government support	-0.162***	-0.161***	-0.138***
		(0.040)	(0.038)	(0.039)
Regulative dimension	Financial support	0.061	0.075*	0.198**
		(0.043)	(0.041)	(0.082)
Normative Dimension	Support for success	0.018	-0.028	-0.302**
		(0.066)	(0.063)	(0.147)
	Risk-taking	-0.018	0.031	0.040
		(0.065)	(0.059)	(0.059)
	Creativity	0.105	0.104*	0.109*
		(0.067)	(0.063)	(0.062)
	Responsibility	-0.173**	-0.138**	-0.132**
		(0.069)	(0.066)	(0.066)
	Support for young entrepreneurs	0.122**	0.088*	0.094*
		(0.059)	(0.048)	(0.049)
	Support from groups	-0.085	-0.082*	-0.101**
		(0.052)	(0.050)	(0.050)
	Role models - friends	0.085*	0.075*	0.075*
		(0.045)	(0.043)	(0.043)
	Role models - relatives	-0.110**	-0.120***	-0.128***
		(0.048)	(0.045)	(0.046)
Cultural-cognitive dimension	Previous experience	-0.022***	-0.020***	-0.019***
		(0.005)	(0.005)	(0.005)
	Skills self-confidence	0.109	0.088	-0.297
		(0.084)	(0.081)	(0.207)
	Effort Self-confidence	-0.155*	-0.129	0.156
		(0.084)	(0.079)	(0.180)
	Risk aversion	0.086*	0.090**	0.080*
		(0.045)	(0.043)	(0.043)
Control variables	Education level. Some school			
	High school degree	-0.095	-0.005	-0.008
		(0.263)	(0.253)	(0.254)
	Technical or vocational degree	0.510	0.583*	0.628**
		(0.333)	(0.314)	(0.316)
	Some college	-0.168	0.012	0.009
		(0.257)	(0.244)	(0.245)
	Community college degree	-0.597*	-0.465	-0.502
		(0.337)	(0.320)	(0.321)
	Bachelor's degree	-0.144	0.021	0.016
		(0.259)	(0.246)	(0.247)
	Some graduate training	-0.256	-0.213	-0.234
		(0.358)	(0.347)	(0.346)
	Master's degree	-0.536*	-0.450	-0.504*
		(0.302)	(0.287)	(0.288)
	Law, MD, PhD, EDD, degree	0.255	0.444	0.449
		(0.451)	(0.426)	(0.427)
	Entrepreneurial parents	-0.020	0.010	0.029
		(0.115)	(0.108)	(0.109)
Relationship between institutional dimensions	Skills self-confidence X Support for success (cultural-cognitive and normative)			0.171**
				(0.084)
	Effort self-confidence X Financial support (cultural-cognitive and regulative)			-0.075*
				(0.044)

Table 4 (continued)

Variables	Operationalisation	(1)	(2)	(3)
		M1	M2	M3
	Constant	-1.522***	-1.581***	-1.484***
		(0.396)	(0.357)	(0.489)
	Shape parameter (p)	1.327***	1.331***	1.343***
		(0.05)	(0.05)	(0.05)
	Observations	477	477	477

Standard errors in parentheses * $p<0.1$, ** $p<0.05$, *** $p<0.01$ - The shape parameter (p) is computed as exp(ln(p)). Standard errors are based on the log-scale estimates reported by the model

We found that support from society (normative dimension) facilitates necessity entrepreneurship compared to opportunity entrepreneurship. Although this finding does not support H2, it demonstrates an interesting pattern that confirms the questions raised by Langevang et al. (2012), who highlight the complexity of entrepreneurial motivation and the variety of future aspirations. For this reason, even entrepreneurs starting their business out of necessity, their aspiration may be to turn it into a high-impact new venture.

The proxies regarding individual experience, perceptions about skills and self-confidence to put effort into the new venture, which is related to the cultural-cognitive dimension, decrease the probability of opportunity entrepreneurship compared to necessity. This result does not align with prior literature that indicates the positive relationship between the cultural-cognitive dimension and opportunity entrepreneurship (Boudreaux et al. 2019). Moreover, the results regarding the positive perceptions of skills that increase the probability of necessity entrepreneurship support the recent study by Li et al. (2020), which argues the same. Along these lines, the institutional variables that influence the type of entrepreneurship differ significantly from the variables that determine the survival of new companies. While the regulative dimension does not influence entrepreneurship by opportunity or necessity, survival is influenced negatively by the government's support and positively by the financial system.

The finding that regulative dimension (financial support) influences firm survival but does not significantly affect opportunity entrepreneurship calls for deeper theoretical interpretation. While such support mechanisms can reduce early-stage business risks, they may not necessarily stimulate innovative or opportunity-driven behavior. Drawing on resource dependence theory (Pfeffer and Salancik 1978), one explanation is that entrepreneurs who access public support may become reliant on external structures, which promotes stability and continuity but potentially reduces the incentive to pursue riskier, opportunity-based ventures. This dynamic suggests that supportive regulative environments can buffer failure without necessarily expanding entrepreneurial ambition. Even in the U.S. context, institutional asymmetries, such as uneven access to quality programs or sector-specific constraints, may help explain why survival is enhanced while opportunity entrepreneurship remains unaffected.

Table 5 Test of the proportional-hazards assumption

Time	χ^2	df	Prob>χ^2
Global Test	18.15	25	0.8361

There is no difference between the survival of necessity and opportunity entrepreneurship. This result explains how entrepreneurs with a strong cultural-cognitive dimension, such as high self-confidence in skills, can turn necessity entrepreneurship into a sustainable business. Furthermore, in this type of case, it does not matter the initial motives of the new business. This result discusses the results of prior literature that has found that entrepreneurship by opportunity has a better chance of survival than entrepreneurship by necessity (Amit and Muller 1995; Caliendo and Kritikos 2010; Cabrer-Borrás and Rico 2018). At the same time, our empirical analysis confirms the results of Bourlès and Cozarenco (2018) regarding the lack of differences between survival considering motivation. Also, results show that necessity entrepreneurs with more experience than opportunity entrepreneurs face fewer problems with fundraising. These findings invite a broader reflection on the role of institutions in shaping entrepreneurial dynamics. The lack of support for several hypotheses, rather than representing empirical noise, points to a more complex institutional logic, in which the effects of each dimension are contingent on their interplay with individual attributes and ecosystemic conditions. This suggests that institutional influence is not linear nor uniformly enabling, but shaped by sector, geographical location and cultural context.

The result that does not support H5b is interesting because the coefficient is statistically significant but with the opposite sign. This result shows that when an individual has a good perception of their skills and this confidence is moderated by favorable normative dimension (perception of the social norms supporting new business creation), the probability of failure increases. It may be due to the excess of confidence of the individual that may not correspond to reality, which is encouraged by society, which leads the individual to fail; this overconfidence is an aspect addressed in previous studies (Invernizzi et al. 2017). This result is particularly relevant because it illustrates how institutional forces, when aligned with strong internal perceptions, can produce unintended consequences. In the case of H5b, rather than reinforcing venture viability, the simultaneous presence of strong normative encouragement and high self-confidence may create an illusion of preparedness or inevitability of success. This alignment might lower critical evaluation and risk assessment, ultimately increasing the probability of failure. Such a pattern supports emerging research on the "dark side" of institutional support, where favorable environments may over-legitimize fragile entrepreneurial efforts. On the contrary, the probability of surviving increases when the regulative dimension moderates the cultural-cognitive dimension. Specifically, when the support of banks and investors for those starting new businesses moderates the effort that the individual puts into the new venture, this result explains the importance of the interaction between the institutional dimensions before running the regression with the interaction term; the cultural-cognitive dimension regarding effort self-confidence was not statistically significant. This contrast between H5b and H5c underscores that institutional support is not inherently positive; its effect depends on how it interacts with the cultural-cognitive dimension. While strong social norms may reinforce overconfidence, financial support aligned with personal effort seems to foster more sustainable outcomes.

While this study is grounded in the institutional approach, it is important to recognize that institutional elements interact within broader entrepreneurial ecosystems.

As highlighted by Wurth et al. (2022), these ecosystems comprise interdependent actors and institutional configurations that co-evolve over time. From this perspective, institutional dimensions (regulative, normative, and cultural-cognitive) may produce differentiated effects depending on how they are embedded within local ecosystem dynamics, such as access to talent, market maturity, and other factors.

6 Implications and conclusions

6.1 Theoretical implications

The main objective of this study was to analyze the institutional dimensions (regulative, normative and cultural-cognitive) that influence both opportunity and necessity entrepreneurship and their survival. From a theoretical perspective, our contributions can be summarized as follows. First, it reveals that institutional dimensions influence opportunity and necessity entrepreneurship in differentiated ways, going beyond the discussion of which motivation leads to desirable entrepreneurship, questioning the notion that institutional support benefits all entrepreneurs equally (Block and Sandner 2009; Naiki and Ogane 2022). Second, it broadens the institutional approach by incorporating survival as a key outcome, shifting attention from entry dynamics to the long-term viability of ventures (Belda and Cabrer-Borrás 2018). This also responds to prior calls for longitudinal analyses in the field (Bağış et al. 2024). Third, while interactions among institutional dimensions are increasingly explored, this analysis contributes to that discussion by showing how institutional forces can sometimes interact or compensate for one another (Lopez et al. 2025; Alvarez et al. 2025). Specifically, our results highlight how the cultural-cognitive dimension—often framed as the space of individual agency and interpretation —is itself shaped by the surrounding normative and regulative conditions. For example, strong normative support, when combined with certain elements of the cultural-cognitive dimension, may unintentionally amplify overconfidence and increase the likelihood of failure (Invernizzi et al. 2017). Conversely, when the effort invested by the entrepreneur is supported by favorable financial conditions (regulative dimension), survival prospects improve, highlighting a positive synergy. These findings suggest that institutional support does not operate in a linear or uniformly positive manner; this supports a more relational and interdependent view of institutions, where the effectiveness of one dimension is contingent on the configuration of others (Bağış et al. 2024).

6.2 Policy implications

The results show that, on the one hand, there are differences in the institutional dimensions that influence the likelihood of necessity or opportunity entrepreneurship. This allows us to go beyond generic recommendations and propose differentiated policy responses grounded in the specific institutional mechanisms. First, the differentiated effects of institutional dimensions on opportunity versus necessity entrepreneurship suggest the need for targeted and nuanced support strategies. For example, while financial support positively affects survival, it is negatively associated with oppor-

tunity entrepreneurship. This apparent paradox suggests that financial aid, in isolation, may inadvertently attract necessity entrepreneurs or even reduce the perceived challenge for opportunity-driven profiles. Therefore, financial instruments should be paired with mechanisms that stimulate autonomy, strategic planning, and innovation, such as milestone-based funding or embedded mentoring, especially for opportunity-oriented ventures.

At the same time, the normative dimension appears to reinforce necessity entrepreneurship, which raises the question of how social legitimacy and cultural values shape the type of ventures individuals pursue. In highly supportive environments, entrepreneurship can become a default path rather than a strategically chosen one, potentially triggering survival-oriented ventures without robust foundations. Public campaigns that celebrate not just entrepreneurial activity but sustainable and purposeful ventures could help reshape these narratives.

One of the most policy-relevant findings is the dual role of education. While higher education levels are positively associated with opportunity entrepreneurship, technical and vocational training appear more strongly related to survival. This suggests that fostering high-potential entrepreneurship is not just a matter of increasing access to university education, but of building hybrid educational models that combine entrepreneurial vision with operational capability. Programs in secondary and tertiary education should integrate practical business management skills, financial literacy, and strategic decision-making alongside innovation and creativity. Moreover, the results call attention to a less intuitive insight: social and cultural support, though generally perceived as positive, can also produce unintended consequences. Our analysis shows that in individuals with high self-confidence, strong normative support may amplify overconfidence, reducing survival. This implies that policies promoting entrepreneurship culture should be accompanied by measures that cultivate critical reflection, risk awareness, and informed decision-making. Entrepreneurial ecosystems should aim not only to inspire but also to prepare, especially those entrepreneurs with fewer resources. Finally, the positive interaction between financial support and self-confidence in predicting survival highlights the importance of coordinated policy design. Entrepreneurs with strong internal resources benefit more from external support, but only when both align. This suggests a need for stage-sensitive and profile-aware support mechanisms that adapt over time rather than offering one-size-fits-all solutions (Alvarez et al. 2025).

In sum, our findings advocate for an institutional logic of policy: one that does not assume "more support" is always better, but asks which type of support, for whom, at what stage, and under which conditions.

6.3 Limitations and future research

As with all studies, our research has certain limitations that present valuable opportunities for exploration in future investigations. There is a limitation regarding the data, given that the study cannot be generalized to contexts different from the United States, since the database obtained thanks to the PSED II project is still in its initial stage in other countries. Several suggestions are offered for future studies. First, comparative studies between different countries should be conducted. It is evident that the

result of the influence of the institutional dimensions in entrepreneurship, especially the regulative dimension, has differences according to the type of new business that is analyzed and the sample used. This type of result precisely shows the need for comparative and specific studies. Second, conduct a multilevel analysis considering variables at the regional level for normative and regulative dimensions, which are not available for the regions in this study. This study presents different proxies for measuring institutional dimensions, and some of them are statistically significant in explaining entrepreneurship by opportunity and necessity; however, these variables must continue to be validated for other samples. Likewise, we made an effort to analyze the interaction between the institutional dimensions. However, this line of research still has much potential to explore. Finally, the integration of the institutional dimensions framework with entrepreneurial ecosystem research presents a promising direction for enhancing our understanding of the cultural-cognitive dimension within entrepreneurship.

Acknowledgements Tatiana Lopez and David Urbano acknowledge the financial support from Grant PID2022-141777NB-I00 funded by MCIN/AEI/ https://doi.org/10.13039/501100011033 and by "ERDF A way of making Europe", and Grant 2021-SGR-00719 funded by Agency for Management of University and Research Grants (AGAUR), Generalitat de Catalunya. Tatiana Lopez also wants to thank Universidad EAFIT and Universitat Autònoma de Barcelona for the scholarship and the financial support to conduct this research. In addition, David Urbano acknowledges the financial support from ICREA under the ICREA Academia programme.

Funding Open Access Funding provided by Universitat Autonoma de Barcelona.

References

Acs Z (2010) High-Impact entrepreneurship. In: Acs ZJ, Audretsch DB (eds) Handbook of entrepreneurship research, Second edn. Springer, New York, pp 165–182

Acs Z, Varga A (2005) Entrepreneurship, agglomeration and technological change. Small Bus Econ 24:323–334. https://doi.org/10.1007/s11187-005-1998-4

Ahsan M, Adomako S, Mole KF (2021) Perceived institutional support and small venture performance: the mediating role of entrepreneurial persistence. Int Small Bus Journal: Researching Entrepreneurship 39:18–39. https://doi.org/10.1177/0266242620943194

Alvarez C, Urbano D (2012) Cultural-cognitive dimension and entrepreneurial activity: A Cross-country study. Revista De Estudios Sociales 44:146–157. https://doi.org/10.7440/res44.2012.14

Alvarez C, Urbano D, Amorós JE (2014) GEM research: achievements and challenges. Small Bus Econ 42:445–465. https://doi.org/10.1007/s11187-013-9517-5

Alvarez C, Lopez T, Urbano D (2025) Do institutional dimensions matter at different stages of the entrepreneurial process? A multi-country study. Small Bus Econ 64(2):353–381. https://doi.org/10.1007/s11187-024-00920-4

Amine LS, Staub KM (2009) Women entrepreneurs in sub-Saharan africa: an institutional theory analysis from a social marketing point of view. Entrepreneurship Reg Dev 21:183–211. https://doi.org/10.1080/08985620802182144

Amit R, Muller E (1995) Push' and 'pull' entrepreneurship. J Small Bus Entrepreneurship 12(4):64–80. https://doi.org/10.1080/08276331.1995.10600505

Amorós JE, Ciravegna L, Mandakovic V, Stenholm P (2019) Necessity or Opportunity? The Effects of State Fragility and Economic Development on Entrepreneurial Efforts. Entrepreneurship: Theory and Practice 43:725–750. https://doi.org/10.1177/1042258717736857

Amorós JE, Cristi O, Naudé W (2021) Entrepreneurship and subjective well-being: does the motivation to start-up a firm matter? J Bus Res 127:389–398. https://doi.org/10.1016/j.jbusres.2020.11.044

Angulo-Guerrero MJ, Pérez-Moreno S, Abad-Guerrero IM (2017) How economic freedom affects opportunity and necessity entrepreneurship in the OECD countries. J Bus Res 73:30–37. https://doi.org/10.1016/j.jbusres.2016.11.017

Aparicio S, Urbano D, Audretsch D (2016) Institutional factors, opportunity entrepreneurship and economic growth: panel data evidence. Technol Forecast Soc Chang 102:45–61. https://doi.org/10.1016/j.techfore.2015.04.006

Audretsch DB, Belitski M, Chowdhury F, Desai S (2021) Necessity or opportunity? Government size, tax policy, corruption, and implications for entrepreneurship. Small Bus Econ. https://doi.org/10.1007/s11187-021-00497-2

Bağış M, Altınay L, Kryeziu L et al (2024) Institutional and individual determinants of entrepreneurial intentions: evidence from developing and transition economies. RMS 18:883–912. https://doi.org/10.1007/s11846-023-00626-z

Belda PR, Cabrer-Borrás B (2018) Necessity and opportunity entrepreneurs: survival factors. Int Entrepreneurship Manage J 14:249–264. https://doi.org/10.1007/s11365-018-0504-9

Beynon M, Battisti M, Jones P, Pickernell D (2021) How institutions matter in the context of business exit: A country comparison using GEM data and FsQCA. Br J Manag 32:832–851. https://doi.org/10.1111/1467-8551.12438

Block J, Sandner P (2009) Necessity and opportunity entrepreneurs and their duration in Self-employment: evidence from German micro data. J Ind Competition Trade 9:117–137. https://doi.org/10.1007/s10842-007-0029-3

Bosma N, Content J, Sanders M, Stam E (2018) Institutions, entrepreneurship, and economic growth in Europe. Small Bus Econ 51:483–499. https://doi.org/10.1007/s11187-018-0012-x

Boudreaux CJ, Nikolaev BN, Klein P (2019) Socio-cognitive traits and entrepreneurship: the moderating role of economic institutions. J Bus Ventur 34:178–196. https://doi.org/10.1016/j.jbusvent.2018.08.003

Bourlès R, Cozarenco A (2018) Entrepreneurial motivation and business performance: evidence from a French microfinance institution. Small Bus Econ 51:943–963. https://doi.org/10.1007/s11187-017-9961-8

Brünjes J, Diez JR (2013) Recession push' and 'prosperity pull' entrepreneurship in a rural developing context. Entrepreneurship Reg Dev 25(3–4):251–271. https://doi.org/10.1080/08985626.2012.710267

Busenitz LW, Gomez C, Spencer JW (2000) Country institutional profiles: unlocking entrepreneurial phenomena. Acad Manag J 43:994–1003. https://doi.org/10.2307/1556423

Cabrer-Borrás B, Rico P (2018) Survival of entrepreneurship in Spain. Small Bus Econ 51:265–278. https://doi.org/10.1007/s11187-017-9923-1

Calderon G, Iacovane L, Juarez L (2017) Opportunity versus necessity: Understanding the heterogeneity of female micro-entrepreneurs. World Bank Economic Rev 30(S1):S86–S96. https://doi.org/10.1093/wber/lhw010

Caliendo M, Kritikos AS (2010) Start-ups by the unemployed: characteristics, survival and direct employment effects. Small Bus Econ 35:71–92. https://doi.org/10.1007/s11187-009-9208-4

Cauchie G, Vaillant NG (2016) New firm survival: isolating the role of founders' human capital in accounting for firm longevity. J Hum Capital 10(2):186–211. https://doi.org/10.1086/686153

Cefis E, Marsili O (2012) Going, going, gone. Exit forms and the innovative capabilities of firms. Res Policy 41(5):795–807. https://doi.org/10.1016/j.respol.2012.01.006

Chowdhury F, Audretsch DB, Belitski M (2019) Institutions and entrepreneurship quality. Entrepreneurship Theory Pract 43:51–81. https://doi.org/10.1177/1042258718780431
Civera A, Meoli M, Vismara S (2020) Engagement of academics in university technology transfer: opportunity and necessity academic entrepreneurship. Eur Econ Rev 123:103376. https://doi.org/10.1016/j.euroecorev.2020.103376
Cleves M, Gould WW, Marchenko YV (2016) An introduction to survival analysis using stata, revised Th. Stata
Coeurderoy R, Murray G (2008) Regulatory environments and the location decision: evidence from the early foreign market entries of new-technology-based firms. J Int Bus Stud 39(4):670–687. https://doi.org/10.1057/palgrave.jibs.8400369
Cox DR (1972) Regression models and life tables. J Roy Stat Soc 34:187–220
Cullen JB, Johnson JL, Parboteeah KP (2014) National rates of opportunity entrepreneurship activity: insights from institutional anomie theory. Entrepreneurship Theory Pract 38:775–806. https://doi.org/10.1111/etap.12018
Deller SC, Conroy T (2017) Business survival rates across the urban–rural divide. Community Dev 48:67–85. https://doi.org/10.1080/15575330.2016.1246459
Demiray M, Burnaz S, Li D (2021) Effects of institutions on entrepreneurs' trust and engagement in crowdfunding. J Electron Commer Res 22:95–109
Dencker JC, Bacq S, Gruber M, Haas M (2021) Reconceptualizing necessity entrepreneurship: A contextualized framework of entrepreneurial processes under the condition of basic needs. Acad Manage Rev 46(1):60–79. https://doi.org/10.5465/AMR.2017.0471
DeTienne D, Wennberg K (2016) Studying exit from entrepreneurship: new directions and insights. Int Small Bus Journal: Researching Entrepreneurship 34:151–156. https://doi.org/10.1177/0266242615601202
Díez-Martín F, Blanco-González A, Prado-Román C (2016) Explaining nation-wide differences in entrepreneurial activity: a legitimacy perspective. Int Entrepreneurship Manage J 12:1079–1102. https://doi.org/10.1007/s11365-015-0381-4
Ferrin M (2023) Self-employed women in europe: lack of opportunity or forced by necessity? Work Employ Soc 37(3):625–644. https://doi.org/10.1177/09500170211035316
Francois V, Belarouci M (2022) Do academic spin-offs outperform young innovative companies? A comparison of survival rates and growth. J Small Bus Enterp Dev 29:1–17. https://doi.org/10.1108/JSBED-05-2020-0169
Freixanet J, Renart Vicens G, Marquès Gou P (2024) Family firms' survival in an economic downturn: the role of ownership concentration and collaborative intensity. J Small Bus Manage 1–32. https://doi.org/10.1080/00472778.2023.2293905
Fuentelsaz L, Gonzalez C, Maicas JP, Montero J (2015) How different formal institutions affect opportunity and necessity entrepreneurship. Bus Res Q 18:246–258. https://doi.org/10.1016/j.brq.2015.02.001
Fuertes-Callén Y, Cuellar-Fernández B, Serrano-Cinca C (2022) Predicting startup survival using first years financial statements. J Small Bus Manage 60:1314–1350. https://doi.org/10.1080/00472778.2020.1750302
Galindo-Martín MÁ, Castaño-Martínez MS, Méndez-Picazo MT (2023) Digitalization, entrepreneurship and competitiveness: an analysis from 19 European countries. RMS 17:1809–1826. https://doi.org/10.1007/s11846-023-00640-1
García-Cabrera AM, Lucía-Casademunt AM, Padilla-Angulo L (2020) Immigrants' entrepreneurial motivation in europe: liabilities and assets. Int J Entrepreneurial Behav Res 26:1707–1737. https://doi.org/10.1108/IJEBR-01-2020-0042
Handrito RP, Slabbinck H, Vanderstraeten J (2023) Stuck in short-term, daily operations, or not? Unraveling sme's long-term orientation. Small Bus Econ 61(4):1723–1745. https://doi.org/10.1007/s11187-023-00748-4
Hessels J, Van Gelderen M, Thurik R (2008) Entrepreneurial aspirations, motivations, and their drivers. Small Bus Econ 31:323–339. https://doi.org/10.1007/s11187-008-9134-x
Howell A (2015) Indigenous innovation with heterogeneous risk and new firm survival in a transitioning Chinese economy. Res Policy 44:1866–1876. https://doi.org/10.1016/j.respol.2015.06.012
Invernizzi AC, Menozzi A, Passarani DA et al (2017) Entrepreneurial overconfidence and its impact upon performance. Int Small Bus Journal: Researching Entrepreneurship 35:709–728. https://doi.org/10.1177/0266242616678445
Johansson J, Malmström M, Wincent J, Parida V (2021) How individual cognitions overshadow regulations and group norms: a study of government venture capital decisions. Small Bus Econ 56(2):857–876. https://doi.org/10.1007/s11187-019-00273-3

Karaivanov A, Yindok T (2022) Involuntary entrepreneurship-Evidence from Thai urban data. World Dev 149:1–20. https://doi.org/10.1016/j.worlddev.2021.105706
Kraus S, Niemand T, Halberstadt J et al (2017) Social entrepreneurship orientation: development of a measurement scale. Int J Entrepreneurial Behav Res 23:977–997. https://doi.org/10.1108/IJEBR-07-2016-0206
Kraus S, Kallmuenzer A, Stieger D et al (2018) Entrepreneurial paths to family firm performance. J Bus Res 88:382–387. https://doi.org/10.1016/j.jbusres.2017.12.046
Kwapisz A (2019) Do government and legal barriers impede entrepreneurship in the U.S.? An exploratory study of perceived vs. actual barriers. J Bus Venturing Insights. https://doi.org/10.1016/j.jbvi.2019.e00114. 11:
Langevang T, Namatovu R, Dawa S (2012) Beyond necessity and opportunity entrepreneurship: motivations and aspirations of young entrepreneurs in Uganda. Int Dev Plann Rev 34:439–459. https://doi.org/10.3828/idpr.2012.26
Lekovic B, Maric S (2017) The technological availability: incentive for opportunity entrepreneurship. Strategic Manage 22:11–18
Leporati M, Torres Marin AJ, Roses S (2021) Senior entrepreneurship in chile: necessity or opportunity? A GEM perspective. Eur Bus Rev 33(6):892–917. https://doi.org/10.1108/EBR-11-2020-0277
Li Y, Huang S (Sam), Song L (eds) (2020) Opportunity and necessity entrepreneurship in the hospitality sector: Examining the institutional environment influences. Tourism Management Perspectives 34:100665. https://doi.org/10.1016/j.tmp.2020.100665
Liu C-Y, Huang X (2016) The rise of urban entrepreneurs in china: capital endowments and entry dynamics. Growth Change 47(1):32–52. https://doi.org/10.1111/grow.12117
Lopez T, Alvarez C, Urbano D (2025) Understanding institutional dimensions in high-impact female entrepreneurship. RMS. https://doi.org/10.1007/s11846-025-00892-z
Millán JM, Congregado E, Román C (2014) Entrepreneurship persistence with and without personnel: the role of human capital and previous unemployment. Int Entrepreneurship Manage J 10:187–206. https://doi.org/10.1007/s11365-011-0184-1
Naiki E, Ogane Y (2022) Human capital effects on fundraising for necessity- and opportunity-based entrepreneurs. Small Bus Econ 59:721–741. https://doi.org/10.1007/s11187-021-00596-0
Nikolaev BN, Boudreaux CJ, Palich L (2018) Cross-Country determinants of Early-Stage necessity and Opportunity-Motivated entrepreneurship: accounting for model uncertainty. J Small Bus Manage 56:243–280. https://doi.org/10.1111/jsbm.12400
O'Donnell P, Leger M, O'Gorman C, Clinton E (2024) Necessity entrepreneurship. Acad Manag Ann 18(1):44–81. https://doi.org/10.5465/annals.2021.0176
Pfeffer J, Salancik G (1978) The external control of organizations: A resource dependence perspective. Harper & Row, New York
Phillips N, Malhotra N (2008) Taking social construction seriously: extending the discursive approach in institutional theory. The SAGE handbook of organizational institutionalism. SAGE Publications Ltd., pp 702–720
Poček J, Fassio C, Kraus S (2022) And yet it moves: National entrepreneurial culture and Entrepreneurship-Friendly policies: evidence from OECD countries. Entrepreneurship Res J 0:1–41. https://doi.org/10.1515/erj-2022-0133
Reynolds P, Curtin RT (2008) Business creation in the united states: panel study of entrepreneurial dynamics II initial assessment. Found Trends Entrepreneurship 4:155–307. https://doi.org/10.1561/0300000022
Reynolds P, Bosma N, Autio E et al (2005) Global entrepreneurship monitor: data collection design and implementation 1998–2003. Small Bus Econ 24:205–231. https://doi.org/10.1007/s11187-005-1980-1
Riva E, Lucchini M (2015) The effect of the country of birth of the owner on business survival. Evidence from Milan metropolitan area, Italy. J Ethn Migr Stud 41:1794–1814. https://doi.org/10.1080/1369183X.2015.1015971
Schillo RS, Persaud A, Jin M (2016) Entrepreneurial readiness in the context of National systems of entrepreneurship. Small Bus Econ 46:619–637. https://doi.org/10.1007/s11187-016-9709-x
Scott WR (1995) Institutions and organizations. SAGE, London
Scott WR (2008) Approaching adulthood: the maturing of institutional theory. Theory Soc 37(5):427–442. https://doi.org/10.1007/s11186-008-9067-z
Scott WR (2014) Institutions and organizations: ideas, interests, and identities. Fourth Edition. Sage
Simon-Moya V, Revuelto-Taboada L, Ribeiro-Soriano D (2016) Influence of economic crisis on new SME survival: reality or fiction? Entrepreneurship Reg Dev 28(1–2):157–176. https://doi.org/10.1080/08985626.2015.1118560

Sohns F, Revilla-Diez J (2018) Explaining micro entrepreneurship in rural vietnam: A multilevel analysis. Small Bus Econ 50(1):219–237. https://doi.org/10.1007/s11187-017-9886-2
Stavroulakis D, Reklitis P (2008) Doing business involuntarily: evidence on determinants of necessity entrepreneurship from the Greek periphery. In: Sakas DP, Konstantopoulos N (eds) Marketing and management sciences. Imperial Coll, pp 587–590
Stenholm P, Acs ZJ, Wuebker R (2013) Exploring country-level institutional arrangements on the rate and type of entrepreneurial activity. J Bus Ventur 28:176–193. https://doi.org/10.1016/j.jbusvent.2011.11.002
Torkkeli L, Fuerst S (2018) Country institutional profiles: evidence from Colombian software exporters. Acad Revista Latinoam De Administración 31:663–678. https://doi.org/10.1108/ARLA-12-2016-0335
Tsvetkova A, Thill JC, Strumsky D (2014) Metropolitan innovation, firm size, and business survival in a high-tech industry. Small Bus Econ 43:661–676. https://doi.org/10.1007/s11187-014-9550-z
Uddin MDR, Bose TK, Ferdausi R (2014) Push and pull factors of entrepreneurs in Khulna city, Bangladesh. Int J Entrepreneurship Small Bus 21(1):101. https://doi.org/10.1504/IJESB.2014.057917
Urbano D, Alvarez C (2014) Institutional dimensions and entrepreneurial activity: an international study. Small Bus Econ 42:703–716. https://doi.org/10.1007/s11187-013-9523-7
Wang W, Guedes MJ (2024) Firm failure prediction for small and medium-sized enterprises and new ventures. RMS 19:1949–1982. https://doi.org/10.1007/s11846-024-00742-4
Weber C, Fasse A, Haugh HM, Grote U (2023) Varieties of Necessity Entrepreneurship – New Insights From Sub Saharan Africa. Entrepreneurship: Theory and Practice 47:1843–1876. https://doi.org/10.1177/10422587221111737
Wei Y (2022) Regional governments and opportunity entrepreneurship in underdeveloped institutional environments: an entrepreneurial ecosystem perspective. Res Policy 51(1):104667. https://doi.org/10.1016/j.respol.2022.104667
Wei X, Jiao Y, Growe G (2019) Language skills and migrant entrepreneurship: evidence from China. Small Bus Econ 53(4):981–999. https://doi.org/10.1007/s11187-018-0105-6
Welter F (2011) Contextualizing Entrepreneurship—Conceptual challenges and ways forward. Entrepreneurship: Theory Pract 35:165–184. https://doi.org/10.1111/j.1540-6520.2010.00427.x
Welter F, Smallbone D (2011) Institutional perspectives on entrepreneurial behavior in challenging environments. J Small Bus Manage 49(1):107–125. https://doi.org/10.1111/j.1540-627X.2010.00317.x
Wennekers S, Van Stel A, Thurik R, Reynolds P (2005) Nascent entrepreneurship and the level of economic development. Small Bus Econ 24:293–309. https://doi.org/10.1007/s11187-005-1994-8
Widz M, Kammerlander N (2022) Entrepreneurial exit intentions in emerging economies: a neoinstitutional perspective. Small Bus Econ 60(2):615–638. https://doi.org/10.1007/s11187-022-00606-9
Wurth B, Stam E, Spigel B (2022) Toward an entrepreneurial ecosystem research program. Entrepreneurship Theory Pract 46(3):729–778. https://doi.org/10.1177/1042258721998948
Yousafzai SY, Saeed S, Muffatto M (2015) Institutional theory and contextual embeddedness of women's entrepreneurial leadership: evidence from 92 countries. J Small Bus Manage 53:587–604. https://doi.org/10.1111/jsbm.12179