



Institutional and individual determinants of entrepreneurial intentions: evidence from developing and transition economies

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Abstract

This study aims to examine the effect of institutions on entrepreneurial intentions, the mediation of individual motives in this relationship, and the moderating effect of the country. We tested a sample of 678 questionnaires using quantitative research methods. We used confirmatory factor, correlation, multiple regression, mediation, and moderated mediation analyses to analyze the data. Findings show that normative institutions affect entrepreneurial intentions in Turkey and Kosovo. They also reveal that the personal attitude, subjective norm, perceived behavioral control, and need for achievement have a full mediation relationship between regulatory institutions and entrepreneurial intentions and a partial mediation relationship between normative and cultural-cognitive institutions and entrepreneurial intentions. Finally, we found no moderating effect of the country in the relationship between institutions and entrepreneurial intentions. The study contributes to the literature and provides policy and managerial implications on the macro and micro factors that affect entrepreneurial intentions in developing and transition economies.

Keywords Entrepreneurial intentions · Institutional theory · Theory of planned behavior · Need for achievement · Macro-micro variables

Jel classification L26 · O43 · P37

1 Introduction

Entrepreneurship is an essential driving factor in a country's sustainable economic development (Acs and Szerb 2007; Teixeira et al. 2017). However, not all countries experience similar economic performance, which refers to the differences in insti-

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tutional settings that encourage entrepreneurial intentions. Therefore, governments attempt to provide advanced reform packages to promote entrepreneurship in order to respond to socio-economic challenges at the national level (Ács and Szerb 2007; Bruton et al. 2010; Acemoglu and Robinson 2012; Kryeziu and Coşkun 2018). Many studies have discussed the contribution of entrepreneurship to a country's economic development as well as the factors that drive entrepreneurship, particularly among the youth (Ogunsade et al. 2021). The motives that drive individuals and the factors that lead individuals to engage in entrepreneurial activities are context-specific (Maresch et al. 2016; Kraus et al. 2018) micro-factors—namely, individuals' motives (Teixeira et al. 2017). These differences in terms of the level of entrepreneurship development and entrepreneurial activities motivate scholars to examine the underlying factors (Bosma et al. 2018; Kraus et al. 2020b; Hammerschmidt et al. 2022).

Previous studies have examined the factors affecting entrepreneurship at the macro and micro-analysis levels. Considering the institutional environment, researchers have studied how entrepreneurial drives are promoted at regulatory, normative, and cultural-cognitive institutions (Valdez and Richardson 2013; Urbano and Alvarez 2014; Oftedal et al. 2018; Guerrero and Marozau 2022). Researchers who examined the impact of individual motivations focused on factors such as the need for achievement, personal attitudes, perceived behavioral control, entrepreneurial spirit, and entrepreneurial orientation (Kautonen et al. 2013; Ferreira et al. 2019; Mas-tur et al. 2020; Kraus et al. 2020a; Biswas and Verma 2021; Anwar et al. 2022; Emami et al. 2022). However, our efforts to understand entrepreneurship at multiple levels of analysis are still ongoing. Because of the different effects of institutional heterogeneity on entrepreneurship, we need empirical evidence from countries at varying levels of economic development.

Despite the burgeoning literature, in recent years, scholars have called for investigation of the impact of institutions on individual entrepreneurial intentions and orientations (Kraus et al. 2019; Bagis et al. 2022) in developing economies (Sethuram et al. 2021; de Mello et al. 2022). Previous research examining the effects of institutions on entrepreneurial intentions is mainly based on Global Entrepreneurship Monitor (GEM) data and multi-country analyses. However, these studies generally provide limited information about entrepreneurs' intentions and individual motivations to start a new business due to limitations in their datasets (Bjørnskov ve Foss 2016; Cinar et al. 2018; Amorós et al. 2021). Therefore, primary data sources and in-depth country analyses are necessary (Valdez and Richardson 2013). Moreover, our understanding of the relationship between the forces of the institutional environment (macro) and individual entrepreneurial motives (micro) is insufficient, particularly regarding the mediating effects of micro-level factors (Bjørnskov and Foss 2016; Mickiewicz et al. 2021; Inkizhinov et al. 2021). Therefore, we present evidence from developing and transition economies to respond to scholars' calls to investigate both emerging economies and individual-level mediating variables in the institution-EI relationship.

In this research, we examined the effect of institutions on entrepreneurial intentions (EI), the mediation of individual motives in this relationship, and the moderating effect of the country, based on data from countries in developing (Turkey) and transition (Kosovo) economies. We used regulatory (RI), normative (NI), and cogni-

tive-cultural institutions (CCI) as institutional variables for our research (Scott 1995). In addition, we considered personal attitudes (PA), subjective norm (SN), perceived behavioral control (PBC) (Ajzen 1991), and need for achievement (NFA) (McClelland 1961) variables as individual motives. In this context, our research presents findings at multi-levels of analysis based on institutional theory, planned behavior theory, and the need for achievement approaches.

The *first* contribution of this study is to clarify the influence of institutions on EI, the mediation of individual motives in this relationship, and the moderating effect of the country, based on evidence from developing and transition economies. We address previous studies' conceptual and empirical limitations in this context. The *second* contribution lies in the joint investigation of the combined influence of a country's institutional profile (as a sociological construct) and entrepreneurs' attitudes, perceptions, and psychological characteristics (as a social psychological construct) on entrepreneurial intentions. In this way, we respond to the calls that more sociology-based research should be undertaken (Bjørnskov ve Foss 2016) because current entrepreneurship research is mostly economy-based (Parker 2005; Bjørnskov ve Foss 2016). *Finally*, we contribute to the literature by investigating institutional pillars and individual motivations through a focus on the past studies' suggestions to use multiple levels of analysis in entrepreneurship research (Bjørnskov ve Foss 2016; Sun et al. 2020; Schade and Schuhmacher 2022; Xu et al. 2022). The rest of this article is structured as follows. The second part discusses the theoretical background and hypothesis development. In the third section, we introduce the method, while the findings of this study are discussed in the fourth section. Finally, the discussion offers theoretical and practical implications, outlines the limitations, and makes suggestions for future research.

2 Theoretical background and hypothesis development

2.1 Institutional pillars and entrepreneurial intentions

Over the last decades, institutions have been integrated into entrepreneurship research to examine the differences between a country or cross-country differences (Bruton et al. 2009; Lim et al. 2010; Sambharya and Musteen 2014). This is due to the importance of institutions for entrepreneurship in general (Bruton et al. 2010; Stam and Van Stel 2011; Bjørnskov and Foss 2013; Bosma et al. 2018) and entrepreneurial intentions in particular (Dehghanpour Farashah 2015; Khalilov and Yi 2021; Su 2021). Likewise, over the years, the importance of institutions has changed from 'background conditions' to an integrated component of entrepreneurship in transition, developing, and developed economies (Peng et al. 2009, 2010; Clercq et al. 2010; Urbano and Aparicio 2016). Institutions are the 'rules of the game' that regulate social life, and are divided into formal and informal institutions (North 1990) whose social arrangements facilitate or hinder entrepreneurship (Valdez and Richardson 2013). As the 'rules of the game' and social arrangements dictate, institutions—through their pillars—influence entrepreneurial intentions. The definition of institutions based on the three main pillars, *regulatory*, *normative*, and *cultural-cognitive*, was provided

by Scott (1995, p. 48), who maintains that, “together with associated activities and resources, [they] provide stability and meaning to social life.” Through the lenses of institutional pillars, our study aims to better understand the different aspects that entrepreneurs face in Turkey and Kosovo. In this vein, our study claims that individuals’ perceptions of institutional pillars influence their entrepreneurial intentions.

Our study assesses the impact of the institutional profile on individuals’ entrepreneurial intentions. Relying on Scott’s (1995) institutional pillars, Busenitz et al. (2000) developed the *scale of institutional profile* to capture a country’s institutional profile for entrepreneurship, aiming to show country differences as well as the distinct role that the three institutional pillars play in determining a country’s entrepreneurial activities. The authors argued that the differences between countries based on Hofstede’s (1980) measures of culture do not explain cross-country entrepreneurial activity differences. Instead, the differences in entrepreneurial activities and intentions in every national economy and the barriers that entrepreneurs face can be explained by these pillars (Busenitz et al. 2000). Differences in institutional pillars within and between countries affect the quality and quantity of entrepreneurship (Chowdhury et al. 2019). Many studies employed a three-dimensional institutional profile scale and provided evidence of the impact of institutional pillars on entrepreneurial activities and intentions (Manolova et al. 2008; Valdez and Richardson 2013; Dehghanpour Farashah 2015). These studies showed that, applying the above scale, we can capture the impact of institutional pillars on individuals’ entrepreneurial intentions and the differences in individuals’ perceptions of a country’s pillars. Our study examines the effects of institutional dimensions in two countries at different institutional and economic development levels: Turkey as a developing economy and Kosovo as a transition economy. These countries differ in institutional, cultural, geographical, and economic settings. Scholars have discussed the pros and cons of examining the impact of institutional pillars as a single construct or whether each should be addressed separately (Wales et al. 2021; Kromidha et al. 2022). Our study examines each pillar separately to assess their overall impact on entrepreneurial intentions (Urban and Kujinga 2017; Oftedal et al. 2018).

2.1.1 Regulatory institutions and entrepreneurial intentions

The regulatory pillar of institutions measures the perceptions of individuals concerning the laws, regulations, and government policies of their country or region (Busenitz et al. 2000; Bosma et al. 2018). This pillar refers to the constraints that entrepreneurs face and how these regulate their behavior (Scott 1995, p. 52) as well as the rules and regulations that govern entrepreneurship (Oftedal et al. 2018). Our study hypothesizes that the regulatory pillar positively influences entrepreneurial intentions. In particular, we acknowledge that individuals’ perceptions of tax systems, regulations on starting a business (Guerrero and Marozau 2022), and the quality of regulations (Aparicio et al. 2016; Korosteleva and Belitski 2017; Bosma et al. 2018) and current policies affect their entrepreneurial intentions (Lin and Si 2014) vary. Perceptions about laws, regulations, and government policies that support new businesses and lower the perceived risks of starting a business (Busenitz et al. 2000), including favorable regulations (Urbano and Alvarez 2014), positively influence

individuals' entrepreneurial intentions (Bakkar et al. 2021). Overall, the quality of laws and regulations reflects positively on the level of entrepreneurship at the country level (Valdez and Richardson 2013; Aparicio et al. 2016; Chowdhury et al. 2019). Countries with institutional environments that have high-quality regulatory institutions and legal protection are likely to see reduced uncertainty, encourage young entrepreneurs to participate in entrepreneurial activities, and positively support the relationship between intentions and entrepreneurial actions (Shirokova et al. 2020). High-quality regulations create positive perceptions, influencing an individual's self-efficacy, intentions of becoming an entrepreneur, and fear of failure (Dehghanpour Farashah 2015). Furthermore, the regulatory pillar influences an individual's entrepreneurial intentions positively, as the more individuals believe that entrepreneurship regulations are friendly, the more likely they are to become entrepreneurs (Monteiro et al. 2021). In this vein, individuals with high entrepreneurial readiness who show high intentions to become entrepreneurs are compared to those with low levels of entrepreneurial readiness when the quality of regulatory institutions is high (Dehghanpour Farashah 2015). Based on the discussion above, we propose the following:

H1 Regulatory institutions positively influence entrepreneurial intentions.

2.1.2 Normative institutions and entrepreneurial intentions

The normative pillar of institutions refers to societal norms and shared values concerning entrepreneurial activities in a given society (Oftedal et al. 2018). The values and norms are the "conceptions of the preferred or the desirable... and norms specify how things should be done; they define legitimate means to pursue valued ends" (Scott 1995, pp. 54–55). This pillar refers to the degree to which individuals in society approve of entrepreneurship and the extent to which start-ups are evaluated as legitimate career choices (Bosma et al. 2018). The normative pillar is measured by the degree to which citizens in a given society admire entrepreneurship and respect creative and innovative thinking (Busenitz et al. 2000). Our study suggests that the normative pillar positively influences entrepreneurial intentions and is an essential predictor of entrepreneurial activity in a society. The social norms in a given society that views entrepreneurship positively and endorses entrepreneurs lead to the positive perceptions of individuals that they will become accepted, in which case they become more entrepreneurially oriented. Specifically, we suggest that favorable social norms motivate individuals to become entrepreneurs (Karim et al. 2022; Wennekers et al. 2002). Scholars maintain that the degree to which the normative pillar is developed reflects directly on individuals' entrepreneurial intentions (Welter and Smallbone 2009; Dehghanpour Farashah 2015; Stephan and Pathak 2016; Ayob and Sayied 2020; Guerrero and Marozau 2022). There are cross-cultural differences in how they view entrepreneurship, where social norms and cultural factors confer value to less or more entrepreneurship (Busenitz et al. 2000; Nguyen and Rose 2009). Therefore, promoting successful entrepreneurs (Lin and Si 2014; Urbano and Alvarez 2014), creating an ecosystem in universities that shapes societal values and norms, and cultivating positive attitudes among individuals concerning entrepreneurship (Korostel-

eva and Beltinski 2017; Bacon and Williams 2022; Guerrero and Marozau 2022) all positively influence entrepreneurial intentions. Considering the arguments discussed above on the influence of norms in society on entrepreneurial intentions, we expect values and norms to affect entrepreneurial intentions positively, and propose the following hypothesis:

H2 Normative institutions positively influence entrepreneurial intentions.

2.1.3 Cognitive-cultural institutions and entrepreneurial intentions

This dimension refers to the extent to which individuals in a society have the knowledge and skills to open a business (Busenitz et al. 2000) and it focuses on the central role of socially mediated construction of a common framework of meaning (Scott 1995, p. 59). The cognitive dimension includes individuals' knowledge and skills (Bosma et al. 2018), learning outcomes, knowledge, and abilities (Ofstedal et al. 2018; Halberstadt et al. 2019). Understanding the entrepreneurial intentions of individuals by focusing on a single construct, such as Hofstede's (1980) cultural dimensions, may not be sufficient to understand the cultural-cognitive institutions surrounding entrepreneurship (Hayton et al. 2002). Thus, more direct "entrepreneurial" cultural attributes, such as innovation (Thomas and Mueller 2000), may need to be examined in greater detail. Also, exploring the cognitive dimension using scenarios seems to be a promising way to explore cultural-cognitive differences between nations. However, more cross-country studies are needed to identify and develop relevant cultural traits and cognitive measures. Considering the lack of current actions on cultural characteristics (Hofstede 1980), we aim to include the measurements of the cognitive dimension and examine their impact on entrepreneurial intentions (Urbano and Alvarez 2014), relying on the Busenitz et al. (2000) scale. This scale has the explanatory power to explain entrepreneurial activities, which, in our study context, is described as *entrepreneurial intentions* (Valdez and Richardson 2013). Our study hypothesizes that the cultural-cognitive dimension positively influences entrepreneurial intentions (Urbano and Alvarez 2014). Scholars suggest that the higher level of cognitive dimension at the national level concerning entrepreneurship has a positive influence and leads to higher entrepreneurial intentions (Dehghanpour Farashah 2015); that is, the cultural-cognitive dimension positively influences entrepreneurial intentions (Lin and Si 2014; Urbano and Alvarez 2014; Korosteleva and Belitski 2017; Monteiro et al. 2021). The stronger the cognitive dimension regarding managerial skills and knowledge is, the more information there is on opening an e-business (Monteiro et al. 2021). The cultural-cognitive level is crucial, as the skills and knowledge held in relation to entrepreneurship reflect directly on an individual's entrepreneurial intentions (Urban 2013). Likewise, self-belief with regards to the skills that individuals possess is important (Aparicio et al. 2016). This also applies to which skills are developed through training and educating entrepreneurs (Lin and Si 2014) as well as through business plan competition (Russell et al. 2008). Therefore, based on the above discussion, we suggest that the cognitive dimension positively influences an individual's entrepreneurial intentions and propose the following hypothesis:

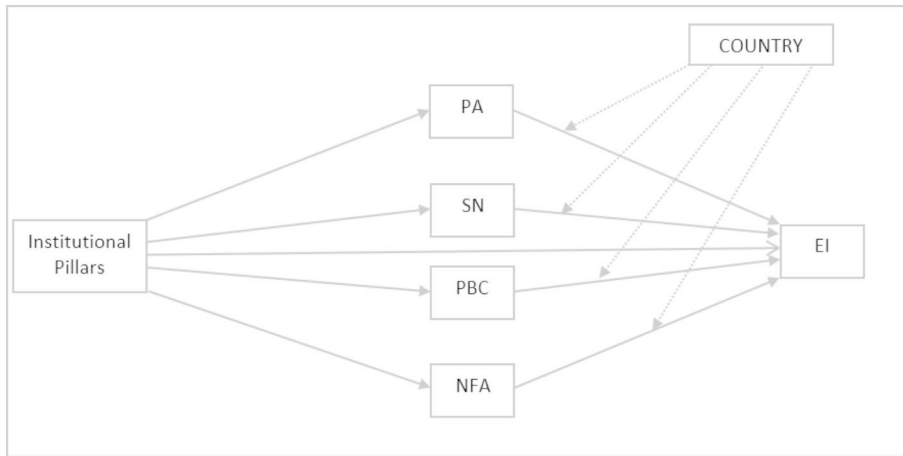


Fig. 1 Research Model

H3 Cognitive-cultural institutions positively influence entrepreneurial intentions.

2.2 Individual motives and entrepreneurial intentions

Different studies have shown that the institutional environment affects the individual’s motivation to engage in entrepreneurial activities (Aidis et al. 2008; Estrin and Mickiewicz 2011; Goltz et al. 2015; Schmutzler et al. 2019). In our study, we argue that the institutional environment influences individual motives in the degree to which the former encourages or discourages individuals from engaging in entrepreneurial activities. This is due to the importance of the institutional environment in creating ‘rules of the game’, generating opportunities for individuals, and creating an environment that encourages individuals to start their businesses (Urbano and Alvarez 2014; Shirokova et al. 2020). When individuals believe that the public perceptions are positive in relation to their attitudes to starting a business, this increases the odds of these individuals engaging in entrepreneurial actions (Nowiński et al. 2020). Likewise, the extent to which the institutional environment influences individuals impacts their decision to engage in either opportunity-driven and necessity-driven entrepreneurship (Sambharya and Musteen 2014) or high-growth entrepreneurship (Boudreaux et al. 2019).

Many studies offer evidence for the effects of individual motivations on entrepreneurial success and intentions (Hassan et al. 2021; Alrawadieh et al. 2021; Cetin et al. 2022). In our study, we employed individual motivations for four variables: (i) Personal attitudes (PA) refers to a person’s positive or negative attitude towards the behavior. (ii) Subjective norms (SN) is defined as an individual’s social pressure to exhibit a behavior. (iii) Perceived behavioral control (PBC) has been attributed to the ease or difficulty an individual perceives while performing a behavior (González-Serrano et al. 2018; Bueckmann-Diegoli et al. 2020). (iv) Need for achievement

(NFA)... is defined as the individual's need for high achievement (Bağış et al. 2022). Previous studies presented evidence of individual motives' direct and indirect effects on EI; however, the results offered contradictory evidence about the impact of individual motivations on entrepreneurial intentions. These studies focused on PA and SN (González-Serrano et al. 2018; Bueckmann-Diegoli et al. 2020; Al-Mamary et al. 2020), PCB (Arshad et al. 2016; González-Serrano et al. 2018; Bueckmann-Diegoli et al. 2020; Al-Mamary et al. 2020), and NFA (Karimi et al. 2017; Biswas and Verma 2021). However, these variables were not examined in a study on the mediation relationship between institutions and EI. Therefore, our study focuses on this gap by examining the mediating effect of individual motivations between institutions and EI.

Scholars argue that individual-level variables are essential to examine the relationship between institutional environment and entrepreneurial intentions (Schlaegel et al. 2013; Schlaegel and Koenig 2014; Urban and Kujinga 2017; Oftedal et al. 2018). Several studies have examined the mediating role that individual-level variables play in the relationship between institutions and entrepreneurial intentions (Urban and Kujinga 2017; Oftedal et al. 2018). In our study, we argue that individual motives mediate the relationship/impact of institutions and entrepreneurial intentions for the reason that the individual-level motivation essential as it influences intentions to become an entrepreneur and overcome various barriers presented by heterogeneous factors (Lang and Liu 2019). Likewise, individuals' perceptions about institutions (Oftedal et al. 2018) and the impact that institutions have on individual perceptions (Urban and Kujinga 2017) reflect on their motives to engage in entrepreneurial activities. For example, Schlaegel et al. (2013) provide evidence for the mediating role of PA, SN, PBC, and NFA variables in the relationship between normative institutions and entrepreneurial intentions. Similarly, Dehghanpour Farashah's (2015) study shows the direct and indirect effects of self-efficacy on the relationship between institutions and entrepreneurial intentions. In addition, Hassan et al. (2021) maintain that entrepreneurial education and intention are stronger when entrepreneurial motivation plays a mediating role. However, despite the growing literature, more empirical studies are needed to examine the mediating role that individual motives' variables play in the relationship between the impact of institutions and entrepreneurial institutions. This is due to the characteristics of the institutional environment in transition and developing economies and the uncertainty that institutions may generate in individuals considering starting a business. In this context, we propose the following hypotheses:

H4 Personal attitudes mediate the effect of regulative, normative, and cognitive-cultural institutions on entrepreneurial intentions.

H5 Subjective norms mediate the effect of regulative, normative, and cognitive-cultural institutions on entrepreneurial intentions.

H6 Perceived behavioral control mediates the effect of regulative, normative, and cognitive-cultural institutions on entrepreneurial intentions.

H7 Need for achievement mediates the effect of regulative, normative, and cognitive-cultural institutions on entrepreneurial intentions.

2.3 Moderated mediation effect between institutions and entrepreneurial intentions

Several studies maintain that the impacts of institutional environment and individual motives on entrepreneurial intentions depend on the country's context. A growing body of literature shows that the intentions to start a business rely on a variety of factors— either micro or macro—depending on how they are related to the country. The source of these differences may be the country's distinct institutional context (Busenitz et al. 2000; Anggadwita et al. 2017; Boudreaux et al. 2019; Fuentelsaz et al. 2019) as well as the differences in the impact of individual motives on entrepreneurial intentions (Liñán and Chen 2009; Tsai et al. 2016; González-Serrano et al. 2018; Bagis et al. 2022). Thus, there are calls for researchers to examine entrepreneurial intentions by considering the impact of context (Thornton et al. 2011; Schmutzler et al. 2019; Litzky et al. 2020). Based on the findings above, it is possible to argue that 'country' is essential where the quality of the institutional profile of the country combined with individual motives shapes an individual's intentions to become an entrepreneur; therefore, empirically examining whether there is a difference in the impact of the institutional environment and individual motives on entrepreneurial intentions based on the country may add to the literature (Clercq et al. 2010; Gupta et al. 2014). Furthermore, the above relationships based on a country's distinct characteristics may add to the field by providing policy implications to improve institutional settings and encourage individuals to become entrepreneurial-oriented. In this context, we propose the following hypothesis.

H8a Country variable has a moderator role in the indirect effect of normative institutions (through individual motives) on entrepreneurial intention.

H8b Country variable has a moderator role in the indirect effect of regulatory institutions (through individual motives) on entrepreneurial intention.

H8c Country variable has a moderator role in the indirect effect of cultural-cognitive institutions (through individual motives) on entrepreneurial intention.

3 Materials and methods

3.1 Research context

The research context of this study is two distinct institutional contexts; a developing economy—*Turkey* and a transition economy—*Kosovo*. Regarding entrepreneurship, institutional environments in developing economies (e.g., Turkey) are considered

more favorable institutional contexts (Guerrero et al. 2021) compared to those in transition economies (e.g., Kosovo). Countries characterized by the latter are represented by a low-income institutional context unfavorable to entrepreneurship, derived from the uncertainty of policies and other institutional settings (Kryeziu and Coşkun 2018; Coşkun et al. 2022; Kryeziu et al. 2022; Patel and Wolfe 2022). On the other hand, the developing and transition economies—the context of this study—are characterized by uncertainties present in a weak institutional environment. This is due to weak ‘rules of the game’ present in formal and informal institutions (North 1990; Boettke and Coyne 2009) caused by frequent changes and consistent uncertainties within institutions (Ahlstrom and Bruton 2010). Consequently, individuals’ intentions to become entrepreneurs are influenced by the three institutional pillars which create uncertainty over their motives to start a business.

Turkey aims to transition from an *efficiency*-oriented economy to an *innovation*-oriented economy (Ozaralli and Rivenburgh 2016) and has experienced growth worldwide in entrepreneurial intentions since 2010. Global Entrepreneurship Monitor data show the rate of those who intend to start a business in Turkey as 35.54%, which is considerably higher than the rate of European Countries (14.2%), Brazil (26.23%), China (17.56%), and the United States (17.28%). Likewise, studies maintain that about 40% of the population aged 18–34 want to start a business soon (Karadeniz 2019). Turkey’s economy has been negatively impacted first by the COVID-19 pandemic and then by the uncertainty created by the war in Ukraine, which have reflected negatively on existing companies and new business start-ups (TÜSIAD 2022). To respond to these crises, institutions such as KOSGEB and TUBITAK, and the Ministry of Industry have taken several measures to encourage new venture development, protect existing businesses, and increase the number of new ventures. These measures have been taken to encourage youth, including women, to engage in entrepreneurial activities (Çetindamar et al. 2012; Oner and Kunday 2016; Gürel et al. 2021). Turkey is establishing Techno Cities, Entrepreneurship Research and Application Centers, and Entrepreneurship Clubs to develop an entrepreneurial ecosystem (Fernandes and Ferreira et al. 2021; Bouncken and Kraus 2022) that can drive individual entrepreneurial motivations through universities.

Kosovo has faced a significant shift from centrally planned economies to market economies, as is the case with other transition economies. During the institutional restructuring process, various problems arose in Kosovo, which led to weak institutions (Kryeziu and Coşkun 2018). As a result, individual motives to start a business were influenced by the barriers derived from institutional voids. These institutional barriers negatively impacted entrepreneurial orientation and growth (Kryeziu and Coşkun 2018; Kryeziu et al. 2022). To respond to this challenge, institutions have introduced several policies to promote entrepreneurship at the national level (OECD/ETF/EU/EBRD 2019). These policies also aim to improve the quality of education in Kosovo; compared to Western Balkan countries, Kosovo is at the bottom of the list regarding knowledge, experience, entrepreneurial learning, and intentions to start up businesses (Lajqi et al. 2019). Hence, the quality of education to provide entrepreneurship training is crucial (Krasniqi 2012). Despite these institutional arrangements, it can be said that the entrepreneurship ecosystems in Turkey and Kosovo have not reached a mature level.

3.2 Data collection and sample

The sample of this study consisted of young potential entrepreneurs who previously and currently owned a business, prepared an entrepreneurship project to start a new business, participated in an entrepreneurship ecosystem crowdfunding meeting, and participated in a business plan competition (Russell et al. 2008). Nascent entrepreneurs in this study range from individuals who previously started or currently own a business, to those who are at the idea stage to start a business, to others who are beginning to dedicate effort and resources to start a business. Those who previously and currently had a job made up 38.93% of the sample, and those who began dedicating effort and resources to start a business accounted for 46.3%. In addition, nascent entrepreneurs were online freelancers with a background in economics, management, health management, business administration, international trade and logistics, international trade, and finance. This research sample is in line with previously published research investigating the entrepreneurial behavior of individuals (Soutaris et al. 2007; Altinay et al. 2021).

3.3 Questionnaire design and pilot survey

There are 12 parts to the current study scale. The first four sections consist of demographics, education, skills, and entrepreneurship information. Sections 5, 6, 7, and 8 cover PA, SN, PBC, and EI, respectively. Section 9 contains items related to the NFA variable, while Sects. 10, 11 and 12 contain regulatory, normative, and cognitive-cultural items about institutions. We examined the relationships between PA, SN, PBC, NFA, and EI and regulatory, normative, and cognitive institutions. We used scales with proven validity, reliability, and high factor loadings to test the model in Fig. 1 and built the scale based on Spector's (1999) scaling guide.

First, we reviewed previous research to establish the scale of institutions. We determined that three studies had scales whose validity and reliability were tested on this subject—Busenitz et al. (2000), Manolova et al. (2008), and Dehghanpour Farashah (2015). In Busenitz et al. (2000), the institutional profile scale includes regulatory, cognitive, and normative dimensions. While the regulatory dimension consisted of five items, each of the cognitive and normative dimensions was represented by four statements. First, Busenitz and colleagues tested the reliability and validity of the scale in developed economies. Later, Manolova et al. (2008) tested the validity and reliability of the same scale (Busenitz et al. 2000) in emerging economies such as Lithuania, Bulgaria, and Hungary. Therefore, in our study, we adopted Busenitz et al.'s (2000) scale. We also benefited from the scale used in Dehghanpour Farashah's (2015) GEM to test factor loadings. To obtain more detailed findings on regulatory, normative, and cognitive-cultural institutions, we added additional items from this scale to finalize the scale of institutions. In the final version of our institutional scale, the regulatory dimension consisted of seven items, the normative dimension consisted of seven items and the cognitive-cultural dimension consisted of four items.

Second, we used the scale developed by Liñán and Chen (2009) and tested for validity and reliability in research conducted in Spain and Taiwan to examine EI. This scale consists of PA (five items), SN (three items), PBC (six items), and EI

(six items) dimensions. *Third*, we used the scale developed by Mhango (2006) to examine the relationship between NFA and EI. This scale was designed to evaluate the entrepreneurial career intentions of higher education students. The scale consists of six items.

The authors translated the questionnaire into Turkish and Albanian for young entrepreneurs in Turkey and Kosovo using the translation-back-translation method. To evaluate the reliability of these scales in Kosovo and Turkey, we conducted a pilot study by randomly selecting 40 volunteers to complete the pretest questionnaires before the formal research. We created the final questionnaire based on their feedback and combined it with language expression habits in Turkey and Kosovo. Therefore, the survey and study do not pose any potential risk to the participants. In this study, we used a seven-point Likert-type scale ranging from 1 to 7, with “1” as “strongly disagree” and “7” as “strongly agree” for the measurement of each statement.

3.4 Sampling and subject

The sample of this study consists of young entrepreneurs in Turkey and Kosovo. Based on the purpose of this study, the sample selection criterion was convenience sampling. After training our research assistants in data collection, data collection was conducted between 10 and 2022 and 20 March 2022. The data collectors informed the participants about four issues: (i) it is not mandatory to participate in the survey; (ii) the collected data will be used for scientific purposes; (iii) the information will not be shared with third parties or institutions, and (iv) that legal processes protect all data. To increase the quality of the responses we distributed and collected the questionnaire at the convenience of the participants. Then we scanned and organized the collected questionnaires. At this stage, we excluded 36 questionnaires that had not answered more than 20% of the questionnaire items. As a result, we collected 354 valid questionnaires for Turkey and 324 for Kosovo for data analysis. We performed the analyses with SPSS 24 and AMOS 24 software. After performing confirmatory factor analysis in AMOS software, we followed numerous studies that used the Hayes Process plugin for mediation and moderated mediation analyses (Yang et al. 2020; Zhou et al. 2020; Jiatong et al. 2021; Ren and Yang 2021; Liu et al. 2022a, b; Uysal et al. 2022). For the data generated from the questionnaires, we employed various statistical analyses tools such as questionnaire reliability, descriptive statistics, differences (T-test and ANOVA), confirmatory factor, correlation, multiple regression, and mediation analyses.

3.5 Construct reliability and validity

Table 1 shows that all constructs in this study had Cronbach’s alpha coefficients greater than 0.70, and the measurement result of each construct shows good consistency. These results confirm that the theoretical constructs meet the reliable internal consistency requirements and have good psychometric properties (Wu et al. 2019).

Furthermore, we conducted factor analysis, and a factor loading greater than 0.70 indicates that approximately half of the variance of the item can be attributed to constructs, which is a sign of construct validity (Fornell and Larcker 1981; Hair et al.

Table 1 Reliability Analysis

Variables	Cronbach's alpha	Composite reliability (CR)	Average variance extracted (AVE)
CCI	0,925	0,945	0,816
EI	0,950	0,958	0,799
NFA	0,964	0,964	0,875
NI	0,903	0,919	0,669
PBC	0,919	0,924	0,713
PA	0,947	0,948	0,824
RI	0,948	0,953	0,761
SN	0,894	0,903	0,826

Table 2 Fornell-Larcker Criterion

	CCI	EI	NFA	NI	PBC	PA	RI	SN
CCI	0.903							
EI	0.406	0.894						
NFA	0.367	0.597	0.935					
NI	0.616	0.590	0.714	0.818				
PBC	0.417	0.738	0.492	0.522	0.844			
PA	0.302	0.583	0.659	0.559	0.468	0.908		
RI	0.522	0.359	0.136	0.422	0.465	0.223	0.872	
SN	0.319	0.480	0.826	0.623	0.430	0.634	0.137	0.909

*Values in bold are the square root of the AVE values of the variables.

2019). The fact that the factor loadings of the items in this study were greater than 0.7, shown in Table 1, indicates that the relationship between items and constructs is closer and that the questionnaire complies with the requirement of aggregation validity (Hair et al. 2019). Hence, the reliability and validity of the overall questionnaire meet the criteria for further analysis. There are 43 statements in total, and the reliability coefficient of the whole scale is 0.973.

We employed the Fornell-Larcker criterion to assess discriminant validity. The Fornell-Larcker criterion compares the AVE of each construct with the squared correlations between constructs (Hair et al. 2013; Henseler et al. 2015). To assess the existence of discriminant validity between constructs, the square root of the AVE must meet the criterion of being superior to the correlation between constructs (Fornell and Larcker 1981). The outcomes of using the Fornell-Larcker criterion are shown in Table 2.

Data are generated using survey language, and there is the potential for pervasive technique bias in surveys; this is referred to as common method bias (CMB) (Podsakoff et al. 2003). The presence of CMB was determined in this investigation using the single factor test developed by Harman. The analysis using SPSS 25 version produced data that indicated that no factor could account for most of the variance. The first factor's variance interpretation was 27.09% of the overall variance and below 40%. Therefore, we do not think that common method bias significantly influenced this study (Lindell and Whitney 2001).

4 Findings

4.1 Descriptive analysis

According to the archives of analysis based on 678 people, 33.63% of the participants are female and 66.37% are male. Considering the number of people living in the participants' households, it was determined that they mostly lived in a family of four (27.29%). In terms of income, families are predominantly in the middle-income group. The rate of young entrepreneurs who know any entrepreneur is 58.1%, and 38.93% of young entrepreneurs stated that they had previous entrepreneurship experience. The availability of career opportunities and personal skills in entrepreneurship was more critical than advice from family and friends. Regarding distribution of the participants by country, Turkey is represented by 52.2% and Kosovo by 48.8%.

4.2 Differences analysis

Perceptions of entrepreneurial intention differ according to age ($F=1.559$ $p<0.047$). This value should be evaluated with caution. The p -value is very close to 0.05. Therefore, there is a difference at the 10% significance level. To answer the question, Do perceptions of EI change according to gender differences? a T-test analysis was conducted. Accordingly, a significant difference was found according to gender ($t=5,354$ $p<0.000$). Perceptions of EI differed significantly according to whether the participant resided in a rural or an urban area ($p>0.001$). Urban residents are more likely to agree with EI statements. Perceptions of EI did not differ statistically according to the number of individuals living at home ($p=0.017$). Participants' EI perceptions vary according to their income levels ($p>0.00$).

Young entrepreneurs' EI perceptions differ statistically according to education level ($F=6.313$, $p<0.02$). Young entrepreneurs with a Master's degree have a higher perception of entrepreneurial intent. The presence of entrepreneurial acquaintances does not affect their degree of agreement with the EI statements. There is no statistically significant difference between the levels of agreement with EI statements compared to those who do not know entrepreneurs ($p=0.199$). The rate of agreement with the statements of EI by those who have and do not have a workplace is not statistically significant ($p=0.705$).

4.3 Confirmatory factor analysis

We used confirmatory factor analysis (CFA) to test the psychometric properties and quality of the measurement model, evaluate the construct validity, and explore the structure of the datasets. CFA is a widely used method to examine construct validity (Atkinson et al. 2011). In CFA, a model shows which variables are loaded on it and which factors are related. The analysis is driven by theoretical relationships between observed and unobserved variables. The leading indicators used to examine the fit of the model are the comparative fit index (CFI), the goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), root mean square residual (RMR), and root mean square error of approximation (RMSEA). CFI, GFI, and AGFI can range

from 0 to 1, where values close to 1 indicate a suitable model. RMR and RMSEA values between 0.06 and 0.10 show a mediocre fit, and those below 0.06 provide a good data match to the model (Schermelleh-Engel et al. 2003). CFI correlates the fit of a target model with the fit of a base model where the variables are assumed to be uncorrelated. The goodness-of-fit index (GFI) is a fit criterion between the putative model and the observed covariance matrix (Fard and Rostamy 2007). The RMR measures the average of the residuals between the sample and the implied covariance matrix. RMSEA is one of the most frequently reported goodness-of-fit measures used in structural equation modeling (Zarei et al. 2021).

As a result of the factor analysis, we determined that the RI factor, which constitutes the three pillars, consists of seven items, the NI factor consists of seven items, and the CI factor consists of four items. In addition, we found that the PA factor within the scope of TPB consists of five items, the SN factor consists of three items, the PBC factor consists of seven items, and the EI factor consists of six items. Finally, the NFA factor consists of five items. We excluded one item due to its low factor loading. The factor loadings of 43 items revealed as a result of the CFA analysis are given in Table 3. We used a robust CFA method to test whether the data fit a hypothetical measurement model. In the analysis, we calculated the loading factor (weight or coefficient) and correlation for each question of the tool.

After designing the model, evaluating model fit is a crucial step in developing a reliable tool. We used various statistical tests to determine how well the model fit the data (goodness of fit). Typically, three indices should suffice to make this determination (Useche et al. 2018). However, we used five indices in this study to improve the reliability and effectiveness of the proposed tool and to evaluate model fit. The CFA results reveal that all indicators of the proposed model are acceptable. Model goodness-of-fit indices are as follows: Chi-square/df value is 3,533 (680); Root mean square error of approximation (RMSEA) is 0.06; Bentler's Comparative Fit Index (CFI) is 0.937; Tucker-Lewis Index (TLI) is 0.93; The Normed Fit Index (NFI) is 0.914, and the Standardized Mean Square Residual (SRMR) is 0.776. Model fit possessive indices have acceptable fit values (Doll et al. 1994; Hu and Bentler 1999; Schreiber et al. 2006; Hair et al. 2019; Tsai et al. 2021).

4.4 Correlation analysis

Table 4 shows correlation analysis, and findings suggest a moderately positive correlation between RI, NI, CCI, PA, SN, PBC, NFA, and EI dimensions. For example, there is a significant relationship between normative institutions and EI above the positive medium strength ($r=0.603$ and $p<0.001$). All correlation values are significant at $p<0.05$ (at a 1% significance level).

4.5 Regression analysis (model 1)

When we test hypotheses in regression analysis, we should use the variance inflation factor (VIF) to examine the possibility of multicollinearity. The results show that the maximum VIF value is 3.29, well below the threshold of 10. Therefore, there is no obvious multicollinearity problem (Neter et al. 1996). The standardized R2

Table 3 Factor Loadings

Factors	Items	λ	P value	α	CR	AVE
RI 1	There are sufficient government subsidies available for new and growing firms	0.797	***	0,948	0,953	0,761
RI 2	Government policies (e.g., public procurement) consistently favor new firms	0.831	***			
RI 3	The support for new and growing firms is a high priority for policy at the local government level	0.848	***			
RI 4	Taxes and other government regulations are applied to new and growing firms in a predictable and consistent way	0.856	***			
RI 5	Coping with government bureaucracy, regulations, and licensing requirements is not unduly difficult for new and growing firms	0.875	***			
RI 6	There is an adequate number of government programs for new and growing businesses	0.857	***			
RI 7	Government programs aimed at supporting new and growing firms are effective	0.816	***			
NI 1	The creation of new ventures is considered to be an appropriate way to become rich	0.766	***	0,903	0,919	0,669
NI 2	The national culture is highly supportive of individual success achieved through own personal efforts	0.718	***			
NI 3	The national culture encourages creativity and innovativeness	0.694	***			
NI 4	The national culture encourages entrepreneurial risk-taking	0.682	***			
NI 5	Most people view becoming an entrepreneur as a desirable career choice	0.850	***			
NI 6	Successful entrepreneurs have high levels of status and respect	0.831	***			
NI 7	Most people think of entrepreneurs as competent, resourceful individuals	0.822	***			
CCI 1	Many people know how to start and manage a small business	0.848	***	0,925	0,945	0,816
CCI 2	Many people have experience in starting a new business	0.885	***			
CCI 3	Many people can react quickly to good opportunities for a new business	0.853	***			
CCI 4	Many people can organize the resources required for a new business	0.882	***			
PA 1	Being an entrepreneur implies more advantages than disadvantages for me	0.822	***	0,947	0,948	0,824
PA 2	A career as an entrepreneur is attractive to me	0.886	***			
PA 3	If I had the opportunity and resources, I would like to start a firm	0.909	***			
PA 4	Being an entrepreneur would entail great satisfaction for me	0.940	***			
PA 5	Among various options, I would rather be an entrepreneur	0.865	***			

Table 3 (continued)

Factors	Items	λ	P value	α	CR	AVE
SN 1	If I start a company, my family will support my decision	0.968	***	0,894	0,903	0,826
SN 2	If I start a company, my close friends will support my decision	0.904	***			
SN 3	If I decide to start a company, my friends at the university will support my decision	0.644	***			
PBC 1	To start a firm and keep it working would be easy for me	0.738	***	0,919	0,924	0,713
PBC 2	I am prepared to start a viable firm	0.873	***			
PBC 3	I can control the creation process of a new firm	0.906	***			
PBC 4	I know the necessary practical details to start a firm	0.729	***			
PBC 5	I know how to develop an entrepreneurial project	0.778	***			
PBC 6	If I tried to start a firm, I would have a high probability of succeeding	0.797	***			
NFA 1	I desire and pursue success	0.938	***	0,964	0,964	0,875
NFA 3	I attribute success or failure to myself rather than to others and circumstances	0.807	***			
NFA 4	I enjoy completing tasks	0.956	***			
NFA 5	I return to uncompleted tasks and finish them	0.949	***			
NFA 6	I put in great effort sometimes in order to learn something new	0.942	***			
EI 1	I am ready to do anything to be an entrepreneur	0.803	***	0,950	0,958	0,799
EI 2	My professional goal is to become an entrepreneur	0.793	***			
EI 3	I will make every effort to start and run my firm	0.832	***			
EI 4	I am determined to create a firm in the future	0.950	***			
EI 5	I have very seriously thought of starting a firm	0.906	***			
EI 6	I have the firm intention to start a firm someday	0.907	***			

***p>0,01

CR: Composite reliability (CR); AVE: Average Variance Extracted; α :Cronbach's alpha; λ : Factor Loadings

Table 4 Mean, standard deviation, and correlation

Variables	Mean	SD	RI	NI	CCI	PA	SN	PBC	NFA	EI
RI	4,048	1,607	1							
NI	3,680	1,559	,437**	1						
CCI	3,000	2,000	,483**	,569**	1					
PA	4,300	2,000	,243**	,573**	,285**	1				
SN	4,108	2,166	,160**	,641**	,295**	,641**	1			
PBC	3,800	1,500	,484**	,539**	,396**	,472**	,439**	1		
NFA	3,900	1,900	,381**	,597**	,380**	,584**	,480**	,737**	1	
EI	3,700	2,000	,183**	,734**	,336**	,659**	,821**	,502**	,595**	1

**p>0,01

Table 5 Indirect Effects of Institutional Pillars on Entrepreneurial Intentions

Unstandardized Effect			β	SE	LLCI	ULCI
Total Effect of RI on EI			0,4434	0,0407	0,3635	0,5232
Direct Effect of RI on EI			0,0482	0,0305	-0,0116	0,108
Path	Unstandardized Indirect Effect		β	SE	LLCI	ULCI
Indirect 1	RI \rightarrow	PA \rightarrow EI	0,0629	0,0158	0,0362	0,0978
Indirect 2	RI \rightarrow	SN \rightarrow EI	-0,0259	0,011	-0,0507	-0,0077
Indirect 3	RI \rightarrow	PBC \rightarrow EI	0,2964	0,0304	0,2399	0,3583
Indirect 4	RI \rightarrow	NFA \rightarrow EI	0,0618	0,0177	0,0303	0,0985
Unstandardized Effect			β	SE	LLCI	ULCI
Total Effect of NI on EI			0.7234	0.0368	0.6511	0.7957
Direct Effect of NI on EI			0.1688	0.0432	0.0841	0.2536
Path	Unstandardized Indirect Effect		β	SE	LLCI	ULCI
Indirect 1	NI \rightarrow	PA \rightarrow EI	0.146	0.0288	0.0943	0.2089
Indirect 2	NI \rightarrow	SN \rightarrow EI	-0.116	0.035	-0.187	-0.049
Indirect 3	NI \rightarrow	PBC \rightarrow EI	0.3354	0.0285	0.2818	0.3903
Indirect 4	NI \rightarrow	NFA \rightarrow EI	0.1893	0.0465	0.0984	0.2806
Unstandardized Effect			β	SE	LLCI	ULCI
Total Effect of CCI on EI			0,4011	0,037	0,3285	0,4737
Direct Effect of CCI on EI			0,0562	0,0266	0,004	0,1084
Path	Unstandardized Indirect Effect		β	SE	LLCI	ULCI
Indirect 1	CCI \rightarrow	PA \rightarrow EI	0,0677	0,0149	0,0411	0,0991
Indirect 2	CCI \rightarrow	SN \rightarrow EI	-0,0442	0,0146	-0,0735	-0,0159
Indirect 3	CCI \rightarrow	PBC \rightarrow EI	0,2225	0,0273	0,1714	0,2788
Indirect 4	CCI \rightarrow	NFA \rightarrow EI	0,0989	0,0206	0,0613	0,1406

SE: Standard Error, LLCI: Lower Limit Confidence Interval, ULCI: Upper Limit Confidence Interval

value of the established multiple regression model is 0.645. The study results show that the regression analysis is significant ($F=179,986$; $p=0.000$). In this model, we *first* examined the effects of regulatory, cognitive, and normative institutions separately to investigate the impact of institutions on EI. We found that only NI positively and significantly affects EI ($\beta=0.137$; $t=2.824$; $p=0.005$). Therefore, according to our findings, H2 is supported. The effects of regulatory and cognitive institutions on EI are not statistically significant as the p-value is greater than 0.05. According to the results, H1 and H3 are not supported. *Second*, according to our analyses, PA ($\beta=0.200$; $t=6.773$; $p=0.00$), SN ($\beta= -0.129$; $t=-3.657$; $p=0.00$), PBC ($\beta=0.628$; $t=17.323$; $p=0.00$), and NFA ($\beta=0.212$; $t=4.809$; $p=0.00$) variables all have statistically significant effects on EI.

4.6 Mediating analysis (model 2)

In this analysis Table 5, we examined the mediating effects of PA, SN, PBC, and NFA variables on the impact of regulatory, normative, and cognitive institutions on EI. *First*, in RI-EI ($\beta=0.0629$, [0.0362, 0.0978]), NI-EI ($\beta=0.146$, [0.0943, 0.2089]) and CCI-EI ($\beta=0.0677$, [0.0411, 0.0991]) relationships, PA has a mediating effect. These results support H4. *Second*, RI-EI ($\beta= -0.0259$, [-0.0507, -0.0077]), NI-EI ($\beta= -0.116$, [-0.187, -0.049]) and CCI-EI relationships ($\beta= -0.0442$, [-0.0735, -0.0159]),

Table 6 Moderated Mediated Analysis

Variables	β	SE	t	P	LLCI	ULCI
constant	-0,112	0,19	-0,589	0,556	-0,484	0,261
NI	0,154	0,042	3,642	0,000	0,071	0,237
PA	0,191	0,043	4,408	0,000	0,106	0,276
SN	-0,152	0,047	-3,23	0,001	-0,245	-0,06
PBC	0,579	0,048	12,028	0,000	0,485	0,674
NFA	0,277	0,059	4,717	0,000	0,162	0,392
Country	-0,153	0,25	-0,611	0,541	-0,644	0,338
PA*Country	0,016	0,059	0,266	0,791	-0,101	0,132
SN*Country	0,042	0,072	0,584	0,56	-0,099	0,182
PBC*Country	0,095	0,066	1,439	0,151	-0,035	0,224
NFA*Country	-0,131	0,081	-1,612	0,108	-0,29	0,029

R: 0,8045; R-sq:0,6473; F: 126,6164; p:0,00

has an SN mediating effect. These findings support H5. *Third*, in RI-EI ($\beta=0.2964$, [0.2399, 0.3588]), NI-EI ($\beta=0.3354$, [0.2818, 0.3903]) and CCI-EI relationships ($\beta=0.225$, [0.1714, 0.2788]), PBC has a mediating effect. These findings support H6. *Finally*, in RI-EI ($\beta=0.0618$, [0.0303, 0.0985]), NI-EI ($\beta=0.1893$, [0.0984, 0.280]) and CCI-EI relationships ($\beta=0.0206$, [0.0613, 0.1406]), NFA has a mediating effect. These findings support H7.

4.7 Moderated mediation analysis (model 3)

Moderated mediation analysis for the hypothesis that the country variable has a moderator role in the indirect effect of normative, regulatory, and cultural-cognitive institutions (through individual motives) on entrepreneurial intentions was carried out with the Hayes Process plugin. For normative institutions, an example is given below according to what Hayes calls the 14th model (Hayes 2017). Considering the analysis results for H8a, H8b, and H8c, which have three sub-hypotheses, they did not support the hypothesis. Therefore, it was found that the country variable did not have a mediating role in the mediating effect of regulatory, normative, and cultural-cognitive institutions (via PA, SN, PBC, and NFA) on entrepreneurial intentions. In addition, since there was no significant effect, the plot showing the difference according to the country variable was not drawn (see Table 6).

The results in Table 6 show that the country variable has no moderator role in the indirect effect of normative institutions (via PA; SN; PBC, and NFA) on entrepreneurial intentions (PA: $\beta=0.016$, $SE=0.059$, $t=0.266$, $p=0.791$ /SN: $\beta=0.042$, $SE=0.072$, $t=0.584$, $p=0.560$ /PBC: $\beta=0.016$, $SE=0.066$, $t=1.439$, $p=0.151$ /NFA: $\beta=-0.131$, $SE=0.081$, $t=-1.612$, $p=0.108$).

5 Implications and conclusion

5.1 Theoretical implications

This study aimed to better understand the effect of regulatory, normative, and cognitive-cultural institutions on entrepreneurial intention, the mediating role of individual motives in this relationship, and the moderating effect of the country. Therefore, we can evaluate the theoretical contributions of the research under four headings. *First*, our analysis of how individual motivations mediate the relationship between regulatory, normative, and cognitive institutions and entrepreneurial intentions makes an essential contribution to entrepreneurship research by combining institutional theory, theory of planned behavior, and the need for achievement approach. In particular, we make a necessary contribution to the suggestions that entrepreneurship research is mainly economy-based and that the contributions of sociological research to entrepreneurship should be revealed (Bjørnskov and Foss 2016). Thus, our research confirms the literature that shows the importance of both the institutional context (sociology) and the actor (psychology) in entrepreneurship studies (Bjørnskov and Foss 2016; Sun et al. 2020; Wales et al. 2021; Schade and Schuhmacher 2022; Xu et al. 2022).

Second, we did not find any evidence regarding our expectation of the impact of regulatory institutions on entrepreneurial intentions (H1). Our research findings add to the emerging literature and fragmentary information about regulatory institutions and entrepreneurial intentions (Valdez and Richardson 2013; Urbano and Alvarez 2014; Chowdhury et al. 2019; Fuentelsaz et al. 2019; Charfeddine and Zaouali 2022). This result may lead to a conclusion that regulatory institutions have a more significant impact on the activities of incumbent firms rather than on the intentions of early-stage entrepreneurs (Charfeddine and Zaouali 2022). Another consideration may be that institutions do not always play an essential role in the case of ‘necessity entrepreneurship,’ where individuals start a business to survive in environments with inadequate or high regulatory barriers (Valdez and Richardson 2013; Castaño et al. 2015). Regulatory institutions can also be ‘brute tools,’ and there are doubts that individuals aiming to start their business understand or are aware of the existence of such institutions (Dehghanpour Farashah 2015). Our findings on normative dimensions show a direct relationship between these institutions and entrepreneurial intention (H2). Specifically, these results contribute to the findings of previous research that accept the relationship between normative institutions and entrepreneurial intentions (Valdez and Richardson 2013; Schlaegel et al. 2013; Oftedal et al. 2018; Khalilov and Yi 2021). The results confirm that the entrepreneurial intentions of individuals embedded in social settings who affirm entrepreneurship as a desirable phenomenon in both countries show an improved trend on average (de Mello et al. 2022). Our results on the cognitive-cultural dimensions show that these institutions do not directly affect entrepreneurial intentions (H3). The results for this dimension contribute to the developing literature on this subject and the conflicting findings of the knowledge set (Schlaegel et al. 2013; Valdez and Richardson 2013; Fuentelsaz et al. 2019). According to these results, the possible inference may be that people in both countries have insufficient knowledge and skills related to entrepreneurship to start, manage, and maintain a new business, or that entrepreneurship-related edu-

cation does not support entrepreneurial intentions (Wales et al. 2021; Graham and Bonner 2022). Additionally, a possible explanation is that entrepreneurial activity is less likely to emerge due to the prevalence of a collectivist culture in developing and transition economies (Dheer Ratan 2017; Junaid et al. 2022).

Third, although only one pillar influenced entrepreneurial intentions, we examined the mediating impact of individual motives (PA, SN, PBC, and NFA) on entrepreneurial intentions. Our study supported H4, H5, H6, and H7 and suggested that individual motives mediate the influence of regulative, normative, and cultural-cognitive elements on entrepreneurial intentions. These findings align with discussions by Schlaegel et al. (2013), Schlaegel and Koenig (2014), Urban and Kujinga (2017), and Oftedal et al. (2018). These findings also add to the literature and show that, to understand the institutional impact, it is crucial to integrate individual-level variables to know the extent to which institutions influence entrepreneurship and the mediating role of individual variables in this relationship. The possible explanation for the mediating impact of individual motives on institutions and entrepreneurship may be that, despite the differences in institutional and economic settings between Kosovo and Turkey, these countries still face the uncertainty of doing business. As a result, individual motives may fill the institutional voids and play the role of a push factor for individuals to become entrepreneurs. In addition, individual motives in uncertain institutional contexts are crucial to responding to uncertainty derived from the institutional environment (Lang and Liu 2019).

Last, we also analyzed the moderating role of using the country as a variable. Our hypothesis was not supported by the country's moderating role in the indirect effect of normative, regulatory, and cultural-cognitive institutions (through individual motives) on entrepreneurial intentions (H8a, H8b, and H8c). These findings contribute to the literature and show that the country variable has no moderating role despite the differences in countries' institutional and economic settings. One possible explanation for this finding is that, despite the differences, both countries in our study are undergoing institutional reforms, and this situation may have negatively reflected on individual motivations to be an entrepreneur. Another possible explanation is that entrepreneurs in both countries may have fragmented characteristics and different entrepreneurial profiles. For example, research on this topic shows that entrepreneurs tend to be more necessity-oriented in less developed institutional contexts. In contrast, entrepreneurs can be opportunity-oriented, or both, in more developed institutional contexts (Valdez and Richardson 2013; Amorós et al. 2019). Therefore, although the country does not have a regulatory role, the differences in the entrepreneurs' perceptions, expectations, and motivations toward the institutions may have driven this result.

5.2 Practical implications

Our study provides some managerial and policy implications. As shown above, this study examined the macro- and micro-level determinants of entrepreneurial intentions of young entrepreneurs in two countries at different stages of economic and institutional development. *First*, regarding the regulatory dimension, governments must introduce policies that encourage entrepreneurship and reduce uncertainty

(Wales et al. 2021). The creation of regulatory institutions that reduce uncertainty and promote entrepreneurship will help to overcome the challenges of unemployment that can occur through the transition from youth entrepreneurial intentions to start-up actions (Shirokova et al. 2020). *Second*, in terms of the normative dimension, normative beliefs of young people about entrepreneurship can be shaped to reveal entrepreneurship intentions at an early age (Valdez and Richardson 2013). Policies can be designed accordingly and aligned with people's norms, perceptions, acceptances, and entrepreneurial experiences. In this process, the tools of behavioral economics can be utilized (Thaler and Sunstein 2008), and positive perceptions and attitudes about entrepreneurship (normative) can be created in the media at the national level. *Last*, in terms of the cognitive-cultural dimension, higher education institutions must cooperate closely with industry to influence young people's entrepreneurial intentions and provide opportunities for them to develop their entrepreneurial skills and knowledge (Da Cruz et al. 2021). To this end, policymakers should build entrepreneurship education curricula based on the cultural characteristics of countries, their contexts, and the needs of their industries. We also recommend that policymakers include individuals of different ages and educational levels, from primary to higher education, in their education processes to improve individuals' entrepreneurial knowledge (Carpenter and Wilson 2022).

5.3 Limitations and future research

As with all studies, our study has limitations that are worth examining in future research. The *first* limitation is related to the definition of institutional pillar. Although we have adopted the institutional columns provided by Busenitz et al. (2000), these pillars may not capture the different features of any one institutional setting or the different connotations in the new institutional theory (Guerrero and Marozau 2022). *Second*, although we focused on two countries and tried to provide a detailed understanding of the institutional dimensions influencing entrepreneurship (Valdez and Richardson 2013), the generalizability of our research is limited for both the sample and other countries. Therefore, we suggest that future studies employ more extensive cross-country samples and provide a detailed explanation of the impact of institutions on entrepreneurial intentions. *Third*, while our study provides a snapshot over time, countries' institutional profiles are likely to change due to institutional reforms carried out by policymakers (Kryeziu and Coşkun 2018; Mickiewicz et al. 2021). In this vein, while economic reforms encourage individuals to engage in economic development, the impact of the institutional environment on entrepreneurial growth becomes crucial, as do the barriers from institutional settings to entrepreneurial entry (Galindo Martin et al. 2019). Hence, longitudinal studies are required to analyze institutional reforms and the dynamic co-evolution of institutional environment and entrepreneurship in transition and developing economies (Li et al. 2021; Sethuram et al. 2021; de Mello et al. 2022). *Fourth*, while our research provides important information on the impact of institutions on entrepreneurship, it does not provide information on the interaction between these institutions and their effect on EI. A future research proposal on this topic is to explore the interaction between the dimensions of institutions (Audretsch et al. 2022), with a particular focus on situations where

each dimension conflicts with the other; for example, when laws proposed by the government to encourage entrepreneurial activity accidentally conflict with different dimensions (i.e. normative or cognitive-cultural). *Finally*, in our research, we have examined four variables as intermediary variables. Future research can also question the intermediary effects of different variables such as Prevention and Promotion (Rey and Fischer-Kreer 2022) and Dark Triad Personality (Brownell et al. 2021).

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