



## Exploring The Impact of Entrepreneurship Education: A Study on Entrepreneurial Intentions in Turkish Universities

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### ABSTRACT (EXTENDED)

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*Objectives:* Entrepreneurship education serves as a key driver within the entrepreneurial ecosystem, equipping individuals with the essential knowledge, skills, and resources to fuel job creation and economic expansion. Recognizing this vital role, this study aims to delve into the intricate relationship between entrepreneurship education and the cultivation of entrepreneurial intentions within the context of Turkish universities. Specifically, it focuses on the distinct yet interrelated functions of lecturers, course content, and university policies in shaping students' aspirations for entrepreneurship.

*Design/methodology/approach:* The foundation of this study is rooted in Resource-Based Theory, which emphasizes the pivotal significance of resources, skills, and capabilities in fostering competitive advantage. Building upon this theoretical framework, this study takes on human capital as a resource and adopts a quantitative approach to unravel the multifaceted dynamics between entrepreneurship education and students' entrepreneurial intentions. An extensive online survey is conducted among a diverse group of students from various Turkish universities. Hierarchical regression analysis is employed to unveil the individual roles of lecturers, course content, and university policies in nurturing students' entrepreneurial intentions.

*Results:* Empirical evidence highlights the substantial influence of entrepreneurship education on students' entrepreneurial intentions. The outcomes indicate the significance of entrepreneurship lecturers, course content, and university policies as influential determinants of entrepreneurial intentions. Notably, among these factors, the influence of university policies emerges as the utmost driving force behind entrepreneurial intentions. This finding underscores the pivotal role of well-designed institutional policies in fostering an environment conducive to effective entrepreneurship education and subsequently nurturing and cultivating entrepreneurial intentions.

*Practical implications:* This study provides practical insights for institutions and policymakers, urging institutions to craft strategies to foster an atmosphere that drives students toward entrepreneurial activities. By understanding how entrepreneurship education, particularly concerning lecturers, content, and policies, influences entrepreneurial intentions, institutions can tailor their curricula and support systems to not only promote entrepreneurship but also foster a culture of entrepreneurial intent.

*Originality/value:* This study pushes the boundaries of existing knowledge by illuminating the relatively unexplored yet crucially important crossroads of entrepreneurship education and entrepreneurial intentions with respect to Turkish universities. Moreover, the study adds an important perspective by focusing on analyzing the viewpoint of students, an area that has been relatively under-researched. This endeavor recognizes students as the primary beneficiaries of entrepreneurship education and consequently, a deeper exploration of their experiences and perceptions holds immense promise for enriching our understanding of the educational process's impact. By investigating the roles of lecturers, course content, and university policies, this research unravels the intricate mechanisms through which entrepreneurship education molds entrepreneurial intentions. Notably, given the limited scope of prior research on the influence of policies in Turkish universities, the distinct emphasis placed on policy impact in this study stands out as a noteworthy contribution.

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## Girişimcilik Eğitiminin Etkisinin Keşfi: Türk Üniversitelerinde Girişimcilik Niyetleri Üzerine bir Araştırma

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### ÖZ

*Amaç:* Bu çalışma, girişimcilik eğitimi ile girişimcilik niyetlerinin arasındaki ilişkiyi Türk üniversiteleri bağlamında öğretim elemanlarının, ders içeriğinin ve üniversite politikalarının farklı ancak birbiriyle ilişkili işlevlerini incelemeyi hedeflemektedir.

*Tasarım/Yöntem:* Kaynak Tabanlı Teori kapsamında, bu çalışma nitel bir yaklaşım benimsemektedir. Türkiye'nin çeşitli üniversitelerine devam eden öğrencilerden oluşan bir örneklemden çevrimiçi anket aracılığıyla veri toplanmıştır. Öğrencilerin girişimcilik niyetlerini üzerinde öğretim elemanlarının, ders içeriğinin ve üniversite politikalarının bireysel rollerini ortaya çıkarmak için hiyerarşik regresyon analizi kullanılmıştır.

*Sonuçlar:* Ampirik kanıtlar, girişimcilik eğitmenlerinin, ders içeriğinin ve üniversite politikalarının girişimcilik niyetlerinin üzerinde etkili olduğunu göstermektedir. Bu faktörler arasında üniversite politikalarının etkisi, girişimcilik niyetlerinin ardındaki en büyük itici güç olarak ortaya çıkmaktadır.

*Uygulama Çıkarımları:* Kurumlar, girişimcilik eğitiminin, özellikle öğretim elemanları, içerik ve politikalarla ilgili olarak girişimci niyetleri nasıl etkilediğini anlayarak öğrencileri girişimci faaliyetlere yönlendirecek bir atmosfer oluşturmaya yönelik stratejiler oluşturabilir, müfredatlarını ve destek sistemlerini girişimciliği teşvik edecek şekilde düzenleyebilirler.

*Özgün Değer:* Öğretim elemanlarının rollerini, ders içeriğini ve üniversite politikalarını araştıran bu araştırma, girişimcilik eğitiminin girişimci niyetleri şekillendirdiği karmaşık mekanizmaları incelemekte ve nispeten az araştırılmış bir alan olan öğrencilerin bakış açılarını analiz ederek ilgili yazına katkıda bulunmaktadır. Türk üniversitelerindeki politikaların etkisine ilişkin önceki araştırmaların sınırlı kapsamı göz önüne alındığında, bu çalışma ilgili yazını genişletmektedir.

## **1. INTRODUCTION**

As a key component in terms of the supply side of the entrepreneurial ecosystem, it is deemed that entrepreneurship education (EE) plays a vital role in nurturing the future generation of entrepreneurs. EE involves utilizing lectures, curriculum, and other approaches to equip learners with knowledge, skills, and a genuine enthusiasm for entrepreneurship (Meyer and Allen, 1991). Further, EE includes imparting the essential knowledge, skills, and attitudes required to transform entrepreneurial concepts into intentions and to ultimately engage in entrepreneurial activities (Alberti et al., 2004).

Nevertheless, despite the presence of a diverse student population representing various disciplines and fields, only a limited number of students have initiated their ventures (Liu et al., 2015). Given that establishing a business is influenced by cultural, societal, systemic, financial, and individual factors, exploring the influence of entrepreneurship education (EE) on entrepreneurial intentions (EI) is expected to provide more comprehensive insights than solely quantifying entrepreneurial ventures. EE can influence students' interest and readiness for entrepreneurship, enabling them to effectively address challenges, and potentially increase the number of entrepreneurial ventures in the long run. Hence, this paper focuses on EE and how it impacts EI of university students.

However, the existing knowledge regarding the impact of EE on EI remains limited (Genç et al., 2020). Ideally, lecturers who teach entrepreneurship, course content and university policies and should be responsive to student needs and contribute to their development. Accordingly, it is supposed that delving into how EE with respect to lecturer role (Otache, 2019), course design and content (Fulgence, 2015), and university policy (Yıldırım and Aşkun, 2012) impacts EI of university students will provide valuable insights.

This paper builds on Resource Based Theory (RBT) to investigate the intricate relationship between EE and EI as RBT underscores the fundamental role of resources, skills, and capabilities in driving competitive advantage (Barney, 1991). Alvarez and Busenitz (2001: 771) further expand RBT to the individual level by emphasizing the entrepreneur's distinct awareness of opportunities and their capacity to access and organize the necessary resources for capitalizing on those opportunities. This perspective can offer a deeper understanding of how EE, as a form of resource enhancement, influences EI. Therefore, RBT is thought to provide a suitable theoretical backdrop for this study.

Hence, by uncovering the roles of entrepreneurship lecturers, course content, and policy in promoting EI, this research aims to provide valuable insights. Exploring the relationship between EE and EI can inform education institutions and policymakers on ways to design and implement effective curricula, training programs, and support structures.

Correspondingly, this paper is organized as follows: Subsequent to reviewing the literature for describing the key notions and the theoretical background, methodology and findings are provided followed by a discussion section. Lastly, concluding remarks alongside future research directions are presented.

## **2. LITERATURE REVIEW**

### **a. Resource-Based Theory and Entrepreneurship**

Resource-based theory (RBT) highlights the internal resources, capabilities, and competencies as the primary drivers of sustained competitive advantage and tries to explain how a firm's unique resources and capabilities contribute to its competitive advantage and performance (Barney, 1991). Management plays a crucial role in identifying and assessing resources and making decisions on how to utilize them (Barney, 1991). Competitive advantage is achieved when managers establish overarching organizing principles (Kogut and Zander, 1992) for the assembly and integration of underlying resources.

As resources and capabilities play a significant role in entrepreneurial activities and the creation of new ventures, entrepreneurship and RBT are deemed to be directly associated. Alvarez and Busenitz (2001:756) note that recognition of opportunities, opportunity seeking behavior as well as the process of combining and organizing resources are valuable skills for entrepreneurship. Consequently, the process of resource combination itself becomes a valuable resource for [entrepreneurs] (Alvarez and Busenitz, 2001). The literature also recognizes that human, financial, physical, and relationship capital are resources that significantly contribute to the entrepreneurial process (Kellermanns et al., 2016) as these contribute to the better enhancement of an entrepreneur's ability to act upon and discover new opportunities. Building on RBT, this study focuses on the human capital as a resource, and it aims to explore how the lecturer; course content and policy with respect to EE contribute to students' EI. Envisaged to become future entrepreneurs or valuable human resources within entrepreneurial ventures, it is essential for these students to acquire knowledge and experience to develop an entrepreneurial mindset.

### **b. Entrepreneurial Intention**

Intentions are the "indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior" (Ajzen, 1991: 181) and the related research reinforces the idea that entrepreneurial behavior is planned and intentional (Bellò et al., 2018; Molaei et al., 2014). Accordingly, entrepreneurial intention (EI) is defined as an individual's mindset that guides the individual towards the establishment of new ventures (Karimi et al., 2016). As launching an entrepreneurial venture is a complex process involving various factors, it is supposed that intention models offer a comprehensive understanding of the underlying motivations and aspirations compelling individuals to participate in entrepreneurship.

The intention to engage in entrepreneurial activities is influenced by various factors known as "antecedents," including personal (psychological), environmental, contextual, motivational, and demographic factors. These antecedents collectively shape individuals' EI and as Otache (2019) notes, they provide insight into the drivers of entrepreneurial activity. As each antecedent is complex enough for separate studies, this study concentrates specifically on educational factors, recognizing their importance in cultivating individuals with lasting entrepreneurial mindsets. Human capital is developed through education, affording them with motivation, discipline, self-confidence, skills and knowledge and ultimately, education is assumed to shape individuals' intentions and behavior. The literature highlights education as the main driver of entrepreneurial behavior (Westhead and Solesvik, 2016). Research by Zamberi (2013) as well as Iacobucci and Micozzi (2012), has revealed that exposure to EE increases the likelihood to engage in entrepreneurial activities and create ventures.

In the relevant literature, utilizing education for enhancing entrepreneurship has been a longstanding inquiry (Kjellman and Ehrsten, 2005) and Douglas (2014) revealed that students who were exposed to practical exercises had higher EI and became more results oriented. As EE plays a significant role in shaping EI, to extend the relevant literature, this study aims to explore the impact of EE with respect to entrepreneurship lecturers, course content, and policy on promoting EI and the details are provided in the following section.

### **c. Entrepreneurship Education**

Entrepreneurship education (EE) involves formal teaching to educate individuals aspiring to start businesses or develop small ventures (Bechard and Toulouse, 1998). Fayolle et al. (2006) emphasize its focus on enhancing entrepreneurs' attitudes and skills that can be used to improve the entrepreneurial qualities of individuals. Wilson (2008) also highlights its role in developing intentions, skills, and attitudes essential for entrepreneurship-based careers. Mohamed and Shiekh Ali (2021) view EE as a process that enhances entrepreneurial skills, intentions, and employability. Overall, EE should lead to the entrepreneurial perspective which helps students gain in-depth insights into entrepreneurship and have opportunity-seeking intentions. (Kirkwood et al., 2014).

The literature emphasizes the significance of EE in promoting EI and mindset. Fayolle and Gailly (2008) portray EE as the foremost contributor to students' intentions to start businesses and create new business ideas. Walter and Block (2016) emphasize the role of EE in providing students with diverse experiences, with innovation and creativity being the most important characteristics. Developing countries often exhibit a greater need for formal EE as education plays an essential role in facilitating entrepreneurship, particularly over extended periods, such as during university studies or long-term education (Aşkun and Yildirim, 2011).

Similarly, Martin et al. (2013) indicate that EE plays a major role in entrepreneurial development and is one of the most fundamental tools for increasing EI among entrepreneurs. In a similar context, Liñán et al. (2011) state that EE is an important way to obtain the required knowledge or skills to create or generate new business ideas, followed by starting a new venture. Studies have shown that EE has positive effects on students' well-being and provides them with a positive attitude towards entrepreneurship and the necessary skills for success (Cho and Lee, 2018). Furthermore, EE has been found to provide students with informative signals about entrepreneurship, leading to enhanced EI (Walter and Block, 2016; Von Graevenitz et al., 2010).

In the Turkish context, EE has been found to significantly influence EI and the development of entrepreneurship-related competencies (Doğan, 2015; Kalyoncuoğlu et al., 2017). EE also contributes to the adoption of technology in ventures, economic development, and internationalization (Demirhan et al., 2019; Yarkin and Yeşil, 2016). However, challenges remain in terms of insufficient coordination of national strategies, limited theoretical content in entrepreneurship courses, and resource constraints (Aşkun and Yildirim, 2011).

Overall, the related stream of research provides strong evidence that EE empowers students with the essential attitudes, skills, knowledge and ultimately with the intentions required to pursue entrepreneurial ventures, leading to a positive impact on economic development. With respect to EE, this paper takes on exploring the role of the lecturer, course, and policy in creating EI for students. The the following subsections provide information on the relevant literature for these dimensions.

### **i. The Role of the Lecturer**

Ideally, entrepreneurship should be taught by someone who is motivated by it, has passion, and can create the intentions in the short-term and behavior in the long-term (Otache, 2019). Entrepreneurship Lecturers (ELs) should act as role models to students and be their source of inspiration for entrepreneurship at both the knowledge and skills levels (Muofhe and du Toit, 2011). The literature confirmed a link between EE and ELs in terms of increasing EI (Otache, 2019; Sirelkhatim and Gangi, 2015). The effectiveness of EE predominantly rests with the ELs' capacity to design a course that aligns with student needs. Emphasizing what entrepreneurs do and cultivating an entrepreneurial mindset are crucial aspects supplemented by practical applications, field visits, and exposure to real business scenarios (Klapper and Neergaard, 2017). Moreover, ELs can make changes in the curriculum to create specialized content and adopting practical techniques rather than purely theoretical approaches. The lecturer might use simulations, personal experiences to instill passion and foster long-term intentions in students (Jones and Iredale, 2010), peer input to impart practical insights (Zeng and Honig, 2016) and can utilize practical assignments and home-based work to incorporate real-life experiences to enhance the learning experience during entrepreneurship courses (Edokpolor and Somorin, 2017). Employing innovative methods, such as delivering entrepreneurship courses through business startups or business planners, can enhance the learning experience (Jones and Iredale, 2010).

In the Turkish context, there is limited literature on the role of ELs in EE (Aşkun and Yildirim, 2011). Further, exploring students' perspectives about whether lecturers can instill EI to students is also another gap in the literature. Accordingly, this paper aims to investigate the crucial role of ELs in facilitating EE and shaping students' EI in Turkish universities.

### **ii. The Role of the Course**

EE is offered at many universities worldwide as courses or programs (Matlay, 2019) and it should focus on providing students with entrepreneurial skills, which are useful to all students, thus, it should be embedded in every program (Gibb, 2002). Scholars exhibit varied focal points, either focusing on "start-up" entrepreneurship and the process of new venture creation as well as various aspects related to operating and running a small growing business (Kassean et al., 2015). Henry et al. (2005) conclude that certain skills can be taught through a traditional didactic approach, while creative and innovative aspects require experiential pedagogical approaches. The theoretical-oriented courses aim to increase awareness about entrepreneurship, encourage students to choose entrepreneurship as a potential career choice (Fayolle and Gailly, 2015). On the other hand, there are course content for entrepreneurship which helps to create EI (Henry et al., 2005) and considers self-employment (Klapper and Tegtmeier, 2010). Practice-oriented courses aim to encourage students and enhance their intentions to be entrepreneurs in the future. The content of such courses encourages the development of new ideas, innovation, and adaptive behavior for future ventures and equips students with specific trade-related skills (Fayolle and Gailly, 2015).

Interest in action-oriented teaching grew alongside traditional instructor-centered methods, using techniques like business plan writing, lectures, guest lectures, case studies, and assigned reading to bridge theory and real business environments (Solomon et al., 1994). Therefore, entrepreneurship courses should be connected to learning-by-doing and emphasize the importance of real-life experience (Rae and Carswell, 2000). Accordingly, there was also a gradual improvement in more experience-based and practice-oriented courses which aim to stimulate students and develop their intentions and mindsets through enhanced engagement (Katz, 2003). Even though many studies look at entrepreneurship courses, context-specific research is needed to explore EE course content and programs from the perspectives of students. The focus on studying entrepreneurs as the starting point for designing EE courses is crucial which will lead to a movement from a teacher center approach to a student-centered approach (Jones, 2010).

With respect to the Turkish universities, Aşkun and Yildirim (2011) investigated the relevancy of EE theoretical course content and its ability to develop the required skills and knowledge for students to establish EI. They conducted a qualitative analysis of websites, course objective lists, courses announcements as well as course content and found that courses at undergraduate and graduate levels are insufficient and do not provide information on market entry, opportunity analysis, and idea recognition (Aşkun and Yildirim, 2011). Strikingly, Yarkin and Yeşil (2016) underscore that course content is one of the major factors enabling students to create international entrepreneurial ventures.

Further, Gürol et al. (2008) explored the character and the basics of entrepreneurship curricula, but they obtained information only from the head of departments. Akin and Demirel (2015) examined entrepreneurship course's influence and deliverables on EI from students' perspectives, revealing that those who participated were more inclined towards entrepreneurship. However, this study was confined to Aksaray University. Arpat et al. (2019) explored entrepreneurship tendency after students take entrepreneurship courses finding that there is a tendency to enter the private sector, however, the study only involved vocational colleges.

Overall, for the Turkish context, there is a research gap regarding the influence of course content on EI similar to Mueller's (2011) research that illustrates the impact of entrepreneurship course content on enhancing students' entrepreneurial intentions. Consequently, the one of the objectives of this study is to provide insights into this matter.

### iii. The Role of Policy

Entrepreneurship policies for universities refer to a wide array of measures designed to promote students' EI and motivate university students to start business ventures (Bergmann et al., 2018). In the related stream of research, Bailetti (2011) highlights the significance of university policies aimed at fostering venture growth and promoting student entrepreneurship. Smallbone (2016) observes that university policies aim to enhance EI, raise awareness, and guide students. Over time, university policies have evolved to incorporate novel commercialization concepts and resource allocation for academic entrepreneurship with the aim to boost students' EI and create long-term behavioral shifts, alongside policies to facilitate effective education-business collaboration through EE (Bozeman and Gaughan, 2007).

Given the potential of entrepreneurial mindsets to enhance economic growth (Reynolds et al., 1994), there is a growing interest in enhancing education with policy inputs. For instance, many attempts are being made to integrate knowledge and practical application across all levels of entrepreneurship courses, thereby fostering a substantial talent pipeline (Walshok and Shapiro, 2014).

For Türkiye, the impact of policy caught the attention of legislators, and the country's strategic development plan included some goals to enhance EI for students and enhance EE across teaching and academic approaches (Turkish Grand National Assembly, 2006). Gurol and Atsan (2006) explored the profile of entrepreneurship in Turkish universities, however, they did not tackle the point of policy and its effects. Turker and Selcuk (2009) emphasized the role of educational structure in promoting EI along with support structures like assistance programs. However, they did not clarify whether these are integral to university policy or whether a significant relationship exists between them. Yıldırım and Aşkun (2012) conducted a qualitative content analysis and explored university mission statements and its policy content, values, norms, and entrepreneurship clubs, centers, and student activities to find evidence of encouraging entrepreneurship at the strategic level, not including students' views or perceptions. Yurtkoru et al. (2014) explored the antecedents of EI at Turkish universities. Their study reveals that educational and structural support influence EI, however, it does not explore university policies. Demirdag and Eraydin (2021) conducted an analysis of policy effects and their role in stimulation higher EI, revealing that policies influence entrepreneurial activities via training programs and resource provision. However, these policies primarily relate to government initiatives rather than being university specific. Therefore, it is evident that there is a gap in research on the role of university policies in Turkish universities with respect to entrepreneurial intentions.

Ultimately, it can be posited that knowledge and skills are essential resources for creating EI keeping in mind the basic premises of Resource-Based Theory. It is supposed that examining the effect of EE on EI from the student perspective offers insights into the effectiveness of EE and informs ongoing improvements in curricula, teaching techniques, and learning experiences. Accordingly, it is presumed that EE plays a significant role in shaping EI and behaviors and hence, this study aims to explore the impact of entrepreneurship lecturers, course content, and policy on promoting EI in Turkish universities.

Consequently, in light of the literature review and the proposed theory, we offer that:

**Hypothesis 1:** *There is a positive and significant relationship between entrepreneurial education and entrepreneurial intentions.*

**Hypothesis 1a:** *There is a positive and significant relationship between lecturer deliverables and entrepreneurial intentions.*

**Hypothesis 1b:** *There is a positive and significant relationship between course content and entrepreneurial intentions.*

**Hypothesis 1c:** *There is a positive and significant relationship between university policy and entrepreneurial intentions.*

## 3. METHODOLOGY

### a. Sampling Design and Data Collection

The Entrepreneurial and Innovative University Index (EIUI–Girişimci ve Yenilikçi Üniversite Endeksi) was selected as the main framework to assess the impact of EE on university students' EI. The Scientific and Technological Research Council of Türkiye (TÜBİTAK) publishes EIUI since 2012 and the index ranks the first 50 universities in the country based on scientific and technological research capability, intellectual property, cooperation and interaction, entrepreneurial and innovative culture, and economic contribution and commercialization. In this study, universities listed in the EIUI are regarded as institutions that acknowledge the significance of entrepreneurship and cultivating an educational environment that promotes and nurtures entrepreneurial endeavors. The study utilized the announced results for 2021 (TÜBİTAK, 2021) as the index is updated annually.

Given the prominence of the entrepreneurial ecosystem in the Marmara Region, as well as the concentration of universities in this area, the data collection process further demanded a deliberate equilibrium between the student responses gathered from the Marmara Region and those from other regions of Türkiye to ensure a comprehensive representation. So, purposive sampling strategy was applied to strategically select universities based on their significance within the entrepreneurial landscape, thus aligning with the study's objectives as suggested by Creswell and Creswell (2017).

The online survey was distributed and administered through leveraging both researchers' student and academic networks and yielded 329 questionnaires with no missing data. Regarding the response rate, the number of collected surveys, reflect a partial response rate. While the response rate may not be optimal, it is known that survey-based research can vary based on factors such as accessibility to participants (Creswell and Creswell, 2017) or the topic being irrelevant for potential respondents. Participants are enrolled to mainly business administration, economics, engineering as well as and other departments such as social studies, healthcare, media who are continuing their studies at undergraduate, master's and Ph.D. levels. Table 1 below exhibits details on the demographic data.

**Table 1:** Demographic Data

Category	Frequency	Percentage
<b>University</b>		
Sabancı University	31	9.4%
Istanbul University	31	9.4%
Marmara University	38	11.6%
Bursa Uludağ University	37	11.2%
Hacettepe University	32	9.7%
Çukurova University	29	8.8%
Selçuk University	35	10.6%
Hasan Kalyoncu University	35	10.6%
Karadeniz Technical University	31	9.4%
Firat University	30	9.1%
<b>Department\Program</b>		
Business administration	178	54.1%
Economics	69	21.0%
Engineering	70	21.3%
Other departments (social studies, healthcare, media .... etc)	12	3.6%
<b>Enrolled Program</b>		
Undergraduate	235	71.4%
Master	81	24.6%
PhD	13	4.0%
<b>Gender</b>		

Male	174	52.9%
Female	155	47.1%
<b>Age</b>		
18 – 22	228	69.3%
23 – 25	53	16.1%
26 – 30	38	11.6%
31 – 35	9	2.7%
Older than 35	1	0.3%
<b>Nationality</b>		
International students	57	17.3%
Turkish students	272	82.7%

#### b. Measures

A questionnaire was designed to collect cross-sectional data to test the suggested relationships. The questionnaire consists of 71 questions. The first question was a filtering question about whether the participants are taking or have taken an entrepreneurship course to ensure the participants are familiar with the research topic. The remainder of the survey involved 7 questions pertaining to demographic data, entrepreneurship lecturers, entrepreneurship course, university policy and entrepreneurial intention. Specifically, to measure the lecturer construct, a 24-item scale by Badwan (2018) and Berk et al. (2005), a 9-item scale for the course construct by Rengiah (2013), a 9-item scale for the policy construct by Rengiah (2013) and a 22-item scale by Liñán and Chen to measure EI (2009) was employed. As the original measures are in English, the questions have been translated and back-translated into Turkish to make sure the concepts are clear and communicated well. Each measure has multiple-items with 6-point summated rating scales with anchors of 1 being strongly disagree and 6 being strongly agree, except for respondent demographics. For each construct, we ran exploratory factor analyses with varimax rotation.

As Table 2 below exhibits, the study data is suitable for dimension reduction using factor analysis method as the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the results of Bartlett's Sphericity Test are statistically significant ( $p < 0.001$ ). The reliability estimate for all the scales turned out to be above the threshold of 0.700 suggested by Nunnally (1978).

**Table 2:** Summary of Factor Analysis and Reliability

	<b>Cronbach's Alpha Value</b>	<b>Total Variance Explained</b>	<b>Kaiser-Meyer-Olkin (KMO)</b>	<b>Bartlett's test of sphericity</b>
<b>Lecturer</b>	0.821	59.2%	.758	.000
<b>Course</b>	0.799	52.2%	.826	.000
<b>Policy</b>	0.907	61.3%	.915	.000
<b>Intention</b>	0.910	59.8%	.899	.000

## 4. FINDINGS

Table 3 below displays the descriptive statistics and the correlations between the different constructs to offer a general synopsis.



**Table 3:** Pearson Correlation Results

	Mean	Std. Deviation	Lecturer	Course	Policy	Entrepreneurial Intention
<b>Lecturer</b>	4,4094	,35478	1			
<b>Course</b>	4,9851	,44002	,284***	1		
<b>Policy</b>	5,2063	,65033	,278***	,367***	1	
<b>Entrepreneurial Intention</b>	5,2614	,52755	,240***	,189***	,632***	1

Note: \*\*\* $p < 0.01$

To test the hypothesis, we employed a hierarchical regression analysis with SPSS 26 to highlight the individual impact of lecturer, course and policy on EI. Department/program, education level, gender, age and nationality were also included as control variables in the model. Specifically, we entered the control variables as the first set of independents, followed by lecturer, course and policy in a stepwise manner.

The analysis results exhibited in Table 4 demonstrate that the control variables explain only 7,5 percent of the variability in EI, still, Model 1 emerges as a statistically significant one ( $F(5;323) = 5,220$ ). With Model 2 explaining 11,9 percent of the variability in EI, the inclusion of lecturer increases the explained variance in a statistically and substantively significant sense ( $\Delta R^2 = 0,045$ ;  $\Delta F(1;322) = 16,296$ ;  $p < 0,01$ ). Then, in Model 3, the addition of course provides an incremental increase in variance explained to 12,8 percent which is statistically significant ( $\Delta R^2 = 0,009$ ;  $\Delta F(1;321) = 15,278$ ;  $p < 0,10$ ). Finally, Model 4 is statistically and substantively significant with control variables, lecturer, course and policy ( $\Delta R^2 = 0.308$ ;  $\Delta F(1;320) = 174.667$ ,  $p < 0.01$ ) explaining 66 percent of the explained variance in EI. For this model, all three independent variables are significant and contribute to higher EI whereas in terms of control variables, education level emerges as a significant control variable ( $\beta_i = -0.306$ ;  $p < 0.01$ ) along with age ( $\beta_i = 0.256$ ;  $p < 0.05$ ) and nationality ( $\beta_i = 0.113$ ;  $p < 0.05$ ). In summary, as the results are statistically significant and thus, H1 is supported. The details of the regression analysis are provided in the table below:

**Table 4:** Regression Results for Entrepreneurial Intention

	Model 1			Model 2			Model 3			Model 4		
	Regression Coefficient	Standard Error	Std. Coefficient	Regression Coefficient	Standard Error	Std. Coefficient	Regression Coefficient	Standard Error	Std. Coefficient	Regression Coefficient	Standard Error	Std. Coefficient
<b>Control Variables</b>												
Department/ program	,100	,031	,173**	0,077	0,031	0,133**	0,070	0,031	0,122**	0,021	0,025	0,036
Education level	-,351	,108	-,364**	-0,348	0,105	-0,361**	-0,345	0,105	-0,358**	-0,295	0,085	-0,306***
Gender	-,019	,057	-,018	-0,001	0,056	0,001	0,021	0,057	0,020	-0,012	0,046	-0,012
Age	,160	,073	,251**	0,176	0,072	0,276**	0,170	0,071	0,266**	0,163	0,058	0,256**
Nationality	,226	,080	,163***	0,237	0,078	0,170**	0,201	0,081	0,144**	0,157	0,065	0,113**
<b>Independent Variables</b>												
Lecturer				0,323	0,080	0,217***	0,283	0,083	0,190***	0,128	0,068	0,086*
Course							0,122	0,069	0,102*	-0,101	0,058	-0,084*
Policy										0,501	0,038	0,618***
<b>Model Summary</b>												
<i>Adjusted R Square</i>	,060			,103			,109			,422		
<i>R Square</i>	,075			,119			,128			,660		
<i>Δ in R Square</i>	,075			,045			,009			,308		
<i>F for Δ in R Square</i>	5,220***			16,296***			3,136*			174,667***		
<i>F for ANOVA</i>	5,220***			7,272***			6,722***			30,898***		
*p < 0,10												
**p < 0,05												
*** p < 0,01												

Note: Provided in Table 4 are the results of four sequential regression runs. Model 1 regresses Entrepreneurial Intention against the control variables only, and the following models include lecturer, course and policy one after the other hierarchically.

## 5. CONCLUSION, DISCUSSIONS AND SUGGESTIONS

Entrepreneurship requires unique skills compared to traditional practices (Liu et al., 2015), emphasizing the importance of an education approach that cultivates traits such as creativity, flexibility, and risk-taking (Schindehutte et al., 2006; Kobia and Sikalieh, 2010). Accordingly, this study explores of the impact of lecturers, course content, policy in the framework of EE on EI from students' perspectives. The findings highlight the substantial influence of these aspects on students' EI and align with the existing literature, demonstrating that enhanced lecturer, course, and policy deliverables influence students' EI.

Building on resource-based theory, this study highlights the role of education in fostering human capital for entrepreneurship. Particularly, research demonstrates a significant correlation between human capital and entrepreneurship, revealing that enhanced knowledge leads to heightened opportunities, recognition, and success (Kellermanns et al., 2016). Within the framework of RBT, this study positions EE as a means of cultivating human capital for entrepreneurship which in turn, accentuates the role of students as they are the prospective human capital that will contribute to ventures and undertake entrepreneurial activities.

Entrepreneurship plays an essential role in addressing unemployment and fostering growth, thereby facilitating the creation of new jobs. This imperative is particularly pronounced at the national level in Türkiye (Demirdag and Eraydin, 2021). However, it is deemed that achieving this requires cultivating the appropriate intentions within a supportive educational framework. Accordingly, this study explores the impact of entrepreneurship education (EE) on entrepreneurial intention (EI) within Turkish universities, focusing on the roles of lecturers, course content, and policy. It aims to comprehend how these factors influence EI and illuminate their significance in the EE process.

The study findings show that there is a significant positive relationship between the lecturer and intention in line with the previous findings (Otache, 2019; Sirelkhatim and Gangi, 2015). The results also corroborate Othman and Othman's (2019) view that ELs deliverables turn students into entrepreneurs through transferring knowledge and skills and creating an entrepreneurial mindset. Of course, constructing the module with relevant knowledge and skills tailored to students' levels is crucial for lecturers and they can enhance this by incorporating simulations, drawing from personal, stakeholder, and student experiences to impart and inspire (Zeng and Honig, 2016). Also, lecturers can develop their strategies to implement a course based on their own experience and knowledge that fit with the entrepreneurship needs (Mawonedzo et al, 2021) of students. In addition, the importance of training lecturers not only in entrepreneurial knowledge but also on new techniques that help students to move and act differently (Toding and Venesaar, 2018) and finally, lecturers are encouraged to start introducing more practically oriented courses that equip students with the know-how to launch their businesses (Solesvik et al, 2012).

Further, the findings extend the literature as there is limited literature on the role of ELs in EE (Aşkun and Yildirim, 2011) for Türkiye along with studies that involve students' perceptions on the subject matter. In this context, the findings highlight ELs' role in facilitating EE and shaping students' EI. These results are noteworthy as lecturers are an integral part of EE and they are the ones who transfer the required skills and competencies to potential entrepreneurs.

The study findings show that there is a significant positive relationship between course and EI in parallel to Mueller's (2011) research. The findings are in line with the literature that course content for entrepreneurship helps to create EI and lead students to consider self-employment (Klapper and Tegtmeyer, 2010). Building upon Jones' (2010) emphasis on student-centered approaches in terms of course content, this study extends the literature by demonstrating that students find course content as a crucial aspect of EE. The findings of this study also provides evidence for the Turkish context. Following the studies of Aşkun and Yildirim, (2011) as well as Yarkin and Yeşil's (2016) views, this research provides new evidence for the crucial role of course content from the students' perspective in fostering EI. The findings also extend Gürol et al.'s (2008) research as they also explored entrepreneurship curricula but has not included students' views. Since the research of Akin and Demirel (2015) only involved one university, the current results also increase the generalizability of the findings.

Li et al. (2022) highlight that policy promote as comprehensive perspective on EE leading to a substantial influence on students' intentions and mindsets. Correspondingly, the results show that there is a substantial positive relationship between policy and EI. The results of this study are in line with the literature involving the impact of policy on EI (Bozeman and Gaughan, 2007; Bailetti, 2011; Smallbone, 2016; Ebewo et al., 2017). Moreover, the impact of policy was found to exert the most significant impact in cultivating EI exhibiting the fact that policy supplies the vital baseline for an effective EE that is conducive for EI to flourish. With respect to the Turkish context, these findings extend the related literature and relieves the unexplored aspects in Turker and Selcuk's (2009), Yildirim and Aşkun's (2012), Yurtkoru et al.'s (2014) as well as Demirdag and Eraydin's (2021) research.

Finally, actionable insights to reconsider the roles of lecturers, course content, and policies should be emphasized. Firstly, equipping lecturers with appropriate skills and assigning qualified instructors with entrepreneurial insight to teach entrepreneurship courses would significantly increase the effectiveness of EE, hence increasing the EI of students. Further, lecturers' practical experience or involvement in start-up ventures are quite crucial as these can provide students with practical understanding and real-life experiences. Secondly, creating courses that combine theoretical and practical aspects of entrepreneurship, flexibility in course content delivery and including practical components is significant for optimizing students' EI. Thirdly, universities can incorporate periodic entrepreneurial activities, seminars, and support programs. The creation of entrepreneurship clubs, provision of suitable facilities for entrepreneurial pursuits, and fostering an encouraging environment are also recommended for providing an educational environment for potential EI to flourish.

## **6. LIMITATIONS**

One of the limitations of this study is the sample size as the data was gathered from students attending to only 10 universities in EIUI. Further, the research does not take the perspectives of lecturers, academic staff and/or policymakers under consideration. Also, the analyses were conducted based on cross-sectional data gathered from the survey. Accordingly, future research should be conducted with a larger sample size that also includes the universities that are not indexed in the EIUI for comparative purposes. In the same vein, comparative studies can reveal similarities and differences in the relationship between EE and EI, focusing on factors unique to emerging and advanced economies for extending theoretical and practical insights. In addition, since entrepreneurial activity is affected by a wide range of factors, potential research should delve into contextual factors like culture, support systems, entrepreneurial ecosystems as well as traits, and psychological conditions. Involving policymakers and university leaders can offer further managerial perspectives. Incorporating both quantitative and qualitative data and adopting longitudinal approaches can enrich upcoming studies. Future studies can also explore the relationship of EE with other components of the entrepreneurial ecosystem and the impact of this relationship on EI.

## REFERENCES

- Adler, P. S., & Kwon, S. W. (2002). Social capital: Prospects for a new concept. *Academy of management review*, 27(1), 17-40.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.
- Akin, H. B., & Demirel, Y. (2015). Entrepreneurship Education and Perception Change: The Preliminary Outcomes of Compulsory Entrepreneurship Course Experience in Turkey. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, (34), 15-26.
- Alberti, F., Sciascia, S., & Poli, A. (2004, July). Entrepreneurship education: notes on an ongoing debate. In Proceedings of the 14th Annual IntEnt Conference, University of Napoli Federico II, Italy (Vol. 4, No. 7).
- Alvarez, S. A., & Busenitz, L. W. (2001). The entrepreneurship of resource-based theory. *Journal of management*, 27(6), 755-775.
- Arpat, B., Yeşil, Y., & Kocaalan, M. L. (2019). A Longitudinal Study on The Effect of Entrepreneurship Courses Taught at the Vocational Colleges in Turkey on Students' Entrepreneurial Tendency. *Eastern Journal of European Studies*, 10(2), 127-161.
- Askun, B., & Yıldırım, N. (2011). Insights on Entrepreneurship Education in Public Universities in Turkey: Creating Entrepreneurs or Not?, *Procedia-Social and Behavioral Sciences*, 24, 663-676.
- Badwan, A. (2018). The adoption of mentorship and its influence on students' cognitive psychology: A case of entrepreneurship education (Doctoral dissertation, University of Southampton, USA).
- Bailetti, T. (2011). Fostering student entrepreneurship and university spinoff companies. *Technology innovation management review*, 1(1), 7-12.
- Barba-Sánchez, V., & Atienza-Sahuquillo, C. (2018). Entrepreneurial intention among engineering students: The role of entrepreneurship education. *European research on management and business economics*, 24(1), 53-61.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, 17(1), 99-120.
- Bechard, J. P., & Toulouse, J. M. (1998). Validation of a didactic model for the analysis of training objectives in entrepreneurship. *Journal of business venturing*, 13(4), 317-332.
- Bello, B., Mattana, V., & Loi, M. (2018). The power of peers: A new look at the impact of creativity, social context and self-efficacy on entrepreneurial intentions. *International journal of entrepreneurial behavior & research*, 24(1), 214-233.
- Bergmann, H., Geissler, M., Hundt, C., & Grave, B. (2018). The climate for entrepreneurship at higher education institutions. *Research policy*, 47(4), 700-716.
- Berk, R. A., Berg, J., Mortimer, R., Walton-Moss, B., & Yeo, T. P. (2005). Measuring the effectiveness of faculty mentoring relationships. *Academic medicine*, 80(1), 66-71.
- Bozeman, B., & Gaughan, M. (2007). Impacts of grants and contracts on academic researchers' interactions with industry. *Research policy*, 36(5), 694-707.
- Cho, Y. H., & Lee, J. H. (2018). Entrepreneurial orientation, entrepreneurial education and performance. *Asia pacific journal of innovation and entrepreneurship*, 12(2), 124-134.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications, USA.
- Demirdag, İ., & Eraydin, A. (2021). Explaining regional differences in firm formation rates: how far are government policies important for entrepreneurship?. *Journal of entrepreneurship in emerging economies*, 13(2), 254-281.
- Demirhan, D., Temel, S., & Durst, S. (2019). The role of public entrepreneurship programs in fostering technology-based entrepreneurship: a Turkish case study. In *Societal Entrepreneurship and Competitiveness* (pp. 5-28). Emerald Publishing Limited.
- Doğan, E. (2015). The Effect of Entrepreneurship Education on Entrepreneurial Intentions of University Students In Turkey. *Istanbul University Econometrics and Statistics E-Journal*, (23), 79-93.
- Douglas, L. M. (2014). Entrepreneurship education on women entrepreneurs at pre-primary and primary level in Kenya. *Research on humanities and social sciences*, 4(22), 77-83.
- Ebewo, P. E., Rugimbana, R., & Shambare, R. (2017). Effects of entrepreneurship education on students' entrepreneurial intentions: A case of Botswana. *Management*, 5(4), 278-289.
- Edokpolor, J. E., & Somorin, K. (2017). Entrepreneurship education programme and its influence in developing entrepreneurship key competencies among undergraduate students. *Problems of education in the 21st century*, 75(2), 144.
- Fayolle, A., & Gailly, B. (2008). From craft to science: Teaching models and learning processes in entrepreneurship education. *Journal of European industrial training*, 32(7), 569-593.
- Fayolle, A., & Gailly, B. (2015). The impact of entrepreneurship education on entrepreneurial attitudes and intention: Hysteresis and persistence. *Journal of small business management*, 53(1), 75-93.

- Fayolle, A., Gailly, B., & Lassas-Clerc, N. (2006). Assessing the impact of entrepreneurship education programmes: a new methodology. *Journal of European industrial training*, 30(9), 701-720.
- Fulgence, K. (2015). Assessing the status of entrepreneurship education courses in higher learning institutions: The case of Tanzania education schools. *Education + training*, 57(2), 239-258.
- Genç, S. Y., Sesen, H., Castanho, R. A., Kirikkaleli, D., & Soran, S. (2020). Transforming Turkish universities to entrepreneurial universities for sustainability: From strategy to practice. *Sustainability*, 12(4), 1496.
- Gibb, A. (2002). In pursuit of a new 'enterprise' and 'entrepreneurship' paradigm for learning: creative destruction, new values, new ways of doing things and new combinations of knowledge. *International journal of management reviews*, 4(3), 233-269.
- Gürol, Y., & Atsan, N. (2006). Entrepreneurial characteristics amongst university students: Some insights for entrepreneurship education and training in Turkey. *Education+ training*, 48(1), 25-38.
- Gürol, Y., Ülgen, A. & Atsan, N. (2008). Entrepreneurship education in Turkish universities, *Journal of Asia entrepreneurship and sustainability*, 4(4), 134-145.
- Henry, C., Hill, F., & Leitch, C. (2005). Entrepreneurship education and training: can entrepreneurship be taught? Part I. *Education+ training*, 47(2), 98-111.
- Iacobucci, D., & Micozzi, A. (2012). Entrepreneurship education in Italian universities: trend, situation and opportunities. *Education+ training*, 54(8/9), 673-696.
- Jones, B., & Iredale, N. (2010). Enterprise education as pedagogy. *Education+ training*, 52(1), 7-19.
- Jones, C. (2010). Entrepreneurship education: revisiting our role and its purpose. *Journal of small business and enterprise development*, 17(4), 500-513.
- Kalyoncuoğlu, S., Aydıntan, B., & Göksel, A. (2017). The effect of entrepreneurship education on entrepreneurial intention: An experimental study on undergraduate business students. *Journal of management research*, 9(3), 72-91.
- Karimi, S., Biemans, H. J., Lans, T., Chizari, M., & Mulder, M. (2016). The impact of entrepreneurship education: A study of Iranian students' entrepreneurial intentions and opportunity identification. *Journal of small business management*, 54(1), 187-209.
- Kassean, H., Vanevenhoven, J., Liguori, E., & Winkel, D. E. (2015). Entrepreneurship education: a need for reflection, real-world experience and action. *International journal of Entrepreneurial behavior & research*, 21(5), 690-708.
- Katz, J. A. (2003). The chronology and intellectual trajectory of American entrepreneurship education: 1876–1999. *Journal of business venturing*, 18(2), 283-300.
- Kellermanns, F., Walter, J., Crook, T. R., Kemmerer, B., & Narayanan, V. (2016). The resource-based view in entrepreneurship: A content-analytical comparison of researchers' and entrepreneurs' views. *Journal of small business management*, 54(1), 26-48.
- Kirkwood, J., Dwyer, K., & Gray, B. (2014). Students' reflections on the value of an entrepreneurship education. *The international journal of management education*, 12(3), 307-316.
- Kjellman, A., & Ehrsten, M. (2005). *A theory of homo entrepreneurus*. In *The emergence of entrepreneurial economics* (Vol. 9, pp. 211-232). Emerald Group Publishing Limited.
- Klapper, R. G., & Neergaard, H. (2017). Teaching entrepreneurship as lived experience through 'wonderment exercises'. In *Entrepreneurship education: New perspectives on entrepreneurship education* (pp. 145-170). Emerald Publishing Limited.
- Klapper, R., & Tegmeier, S. (2010). Innovating entrepreneurial pedagogy: examples from France and Germany. *Journal of small business and enterprise development*, 17(4), 552-568.
- Kobia, M., & Sikalieh, D. (2010). Towards a search for the meaning of entrepreneurship. *Journal of European industrial training*, 34(2), 110-127.
- Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization science*, 3(3), 383-397.
- Li, G., Long, Z., Jiang, Y., Huang, Y., Wang, P., & Huang, Z. (2023). Entrepreneurship education, entrepreneurship policy and entrepreneurial competence: Mediating effect of entrepreneurship competition in China. *Education+ training*, 65(4), 607-629.
- Liñán, F., & Chen, Y. W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship theory and practice*, 33(3), 593-617.
- Liñán, F., Rodríguez-Cohard, J. C., & Rueda-Cantuche, J. M. (2011). Factors affecting entrepreneurial intention levels: a role for education. *International entrepreneurship and management journal*, 7, 195-218.
- Liu, X., Liu, Y & Zhuxin, W. A. N. (2015). Difficulties of college students' business startups under economic new normal and their countermeasures. *Cross-cultural communication*, 11(11), 107-112.
- Martin, B. C., McNally, J. J., & Kay, M. J. (2013). Examining the formation of human capital in entrepreneurship: A meta-analysis of entrepreneurship education outcomes. *Journal of business venturing*, 28(2), 211-224.

- Matlay, H. (2019). Annals of Entrepreneurship Education and Pedagogy–2018. *Education+ training*, 61(7/8), 1040-1042.
- Mawonedzo, A., Tanga, M., Luggya, S., & Nsubuga, Y. (2020). Implementing strategies of entrepreneurship education in Zimbabwe. *Education+ training*, 63(1), 85-100.
- McNally, J. J., Piperopoulos, P., Welsh, D. H., Mengel, T., Tantawy, M., & Papageorgiadis, N. (2020). From pedagogy to andragogy: Assessing the impact of social entrepreneurship course syllabi on the Millennial learner. *Journal of small business management*, 58(5), 871-892.
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human resource management review*, 1(1), 61-89.
- Mohamed, N. A., & Sheikh Ali, A. Y. (2021). Entrepreneurship education: systematic literature review and future research directions. *World Journal of Entrepreneurship, Management and sustainable development*, 17(4), 644-661.
- Molaei, R., Zali, M. R., Mobaraki, M. H., & Farsi, J. Y. (2014). The impact of entrepreneurial ideas and cognitive style on students entrepreneurial intention. *Journal of entrepreneurship in emerging economies*, 6(2), 140-162.
- Mueller, S. (2011). Increasing entrepreneurial intention: Effective entrepreneurship course characteristics. *International journal of entrepreneurship and small business*, 13(1), 55-74.
- Muofhe, N. J., & Du Toit, W. F. (2011). Entrepreneurial education's and entrepreneurial role models' influence on career choice. *SA journal of human resource management*, 9(1), 1-15.
- Otache, I. (2019). Enhancing the effectiveness of entrepreneurship education: the role of entrepreneurial lecturers. *Education+ training*, 61(7/8), 918-939.
- Othman, N. H., & Othman, N. (2019). A systematic review on entrepreneurship education in higher learning institutions in Southeast Asia. *Universal journal of educational research*, 7(11), 2406-2416.
- Rae, D., & Carswell, M. (2001). Towards a conceptual understanding of entrepreneurial learning. *Journal of small business and enterprise development*, 8(2), 150-158.
- Rengiah, P. (2013). *Effectiveness of entrepreneurship education in developing entrepreneurial intentions among Malaysian university students* (Doctoral dissertation, Southern Cross University).
- Reynolds, P., Storey, D. J., & Westhead, P. (1994). Cross-national comparisons of the variation in new firm formation rates. *Regional studies*, 28(4), 443-456.
- Schindehutte, M., Morris, M., & Allen, J. (2006). Beyond achievement: Entrepreneurship as extreme experience. *Small business economics*, 27, 349-368.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of management review*, 25(1), 217-226.
- Sirelkhatim, F., & Gangi, Y. (2015). Entrepreneurship education: A systematic literature review of curricula contents and teaching methods. *Cogent business & management*, 2(1), 1052034.
- Smallbone, D. (2016). Entrepreneurship policy: Issues and challenges, *Small enterprise research*, 23(3), 201–218.
- Solesvik, M. Z., Westhead, P., Kolvereid, L., & Matlay, H. (2012). Student intentions to become self-employed: the Ukrainian context. *Journal of small business and enterprise development*, 19(3), 441-460.
- Solomon, G. T., Weaver, K. M., & Fernald Jr, L. W. (1994). A historical examination of small business management and entrepreneurship pedagogy. *Simulation & gaming*, 25(3), 338-352.
- Stam, E., & Wennberg, K. (2009). The roles of R&D in new firm growth. *Small business economics*, 33, 77-89.
- Teece, D. J. (1986). Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy. *Research policy*, 15(6), 285-305.
- Toding, M., & Venesaar, U. (2018). Discovering and developing conceptual understanding of teaching and learning in entrepreneurship lecturers. *Education+ training*, 60(7/8), 696-718.
- TÜBİTAK. (2021). 2022 Yılı Girişimci ve Yenilikçi Üniversite Endeksi Sonuçları, [https://www.tubitak.gov.tr/sites/default/files/gostergebazliveri\\_tablo.pdf](https://www.tubitak.gov.tr/sites/default/files/gostergebazliveri_tablo.pdf) (08.08.2022)
- Turker, D., & Selcuk, S. S. (2009). Which factors affect entrepreneurial intention of university students?. *Journal of European industrial training*, 33(2), 142-159.
- Turkish Grand National Assembly. (2006). Dokuzuncu Kalkınma Planı (2007-2013), <https://www.resmigazete.gov.tr/eskiler/2006/07/20060701M1-2.pdf> (10.10.2022)
- Von Graevenitz, G., Harhoff, D., & Weber, R. (2010). The effects of entrepreneurship education. *Journal of economic behavior & organization*, 76(1), 90-112.
- Walshok, M. L., & Shapiro, J. D. (2014). Beyond tech transfer: a more comprehensive approach to measuring the entrepreneurial university. In *Academic Entrepreneurship: creating an entrepreneurial ecosystem* (Vol. 16, pp. 1-36). Emerald Group Publishing Limited.

- Walter, S. G., & Block, J. H. (2016). Outcomes of entrepreneurship education: An institutional perspective. *Journal of business venturing*, 31(2), 216-233.
- Westhead, P., & Solesvik, M. Z. (2016). Entrepreneurship education and entrepreneurial intention: Do female students benefit?. *International small business journal*, 34(8), 979-1003.
- Wilson, K. E. (2008). Entrepreneurship education in Europe. *Entrepreneurship and higher education*, Chapter 5, OECD.
- Yarkin, D., & Yeşil, Y. (2016). The Role of Entrepreneurship Education on Internationalization Intention. A Case Study from Izmir-TURKEY. *European journal of social science education and research*, 3(1), 128-134.
- Yıldırım, N., & Aşkun, O. B. (2012). Entrepreneurship intentions of public universities in Turkey: going beyond education and research?. *Procedia-Social and behavioral sciences*, 58, 953-963.
- Yurtkoru, E. S., Kuşcu, Z. K., & Doğanay, A. (2014). Exploring the antecedents of entrepreneurial intention on Turkish university students. *Procedia-Social and behavioral sciences*, 150, 841-850.
- Zahra, S. A., Ireland, R. D., Gutierrez, I., & Hitt, M. A. (2000). Introduction to Special Topic Forum Privatization and Entrepreneurial Transformation: Emerging Issues and a Future Research Agenda. *Academy of management review*, 25(3), 509-524.
- Zamperi Ahmad, S. (2013). The need for inclusion of entrepreneurship education in Malaysia lower and higher learning institutions. *Education+ training*, 55(2), 191-203.
- Zeng, Z. E., & Honig, B. (2016). How should entrepreneurship be taught to students with diverse experience? A set of conceptual models of entrepreneurship education. In *Models of start-up thinking and action: Theoretical, empirical and pedagogical approaches* (Vol. 18, pp. 237-282). Emerald Group Publishing Limited.