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EXPLORING THE EFFECTS OF DEMOGRAPHIC AND SOCIO-CULTURAL FACTORS ON ENTREPRENEURSHIP TENDENCY

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Abstract

The purpose of this paper is to explore the effective factors of entrepreneurship tendency on university students and young people who graduated from university within 10 years. It aims to understand the effective factors to be an entrepreneur and make a recommendation about the needed environment in universities to increase entrepreneurial individuals. The research method is based on qualitative by the in-depth interviews with 13 entrepreneurs and quantitative analysis that tested with an online survey by 303 participants. The results of this study was observed that demographic factors were less effective than the socio-cultural factors in entrepreneurship tendency. It was concluded that individuals with more social opportunities have the intention of becoming more entrepreneurs. Entrepreneurship training has been rapidly spreading with Entrepreneurship take place in the 10th Development Plan in Turkey. Studies in the literature have shown that people have a high entrepreneurship tendency who took entrepreneurship training. However, this study also includes individuals who did not take entrepreneurship training from different disciplines and different provinces in Turkey.

Keywords: Entrepreneurship, Entrepreneurship Tendency, Education

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DEMOGRAFİK VE SOSYO-KÜLTÜREL FAKTÖRLERİN GİRİŞİMCİLİK EĞİLİMİ ÜZERİNDEKİ ETKİLERİNİN İNCELENMESİ

Özet

Bu çalışmanın amacı, üniversite öğrencileri ve 10 yıl içinde üniversiteden mezun olan gençlerin girişimcilik eğilimlerini etkileyen faktörleri araştırmaktır. Girişimci olmayı etkileyen faktörleri anlamak ve girişimci sayısını arttırmak için üniversitelerde ihtiyaç duyulan ortam hakkında önerilerde bulunmayı amaçlamaktadır.

Araştırma, 13 girişimci ile yapılan derinlemesine mülakat ve 303 katılımcı tarafından cevaplanan çevrimiçi anket aracılığıyla nicel ve nitel analiz yöntemi kullanılarak yapılmıştır. Bu çalışmanın sonuçlarına göre demografik faktörlerin sosyo-kültürel faktörlerden daha az etkili olduğu gözlemlenmiştir. Sosyal fırsatları daha fazla olan bireylerin daha fazla girişimci olma niyetinde oldukları sonucuna varılmıştır.

Girişimcilik eğitimi, Türkiye'de 10. Kalkınma Planında yer alan girişimcilik üzerine yapılması plananlanan çalışmalar ile yaygınlaştırılmıştır. Literatürdeki çalışmalar, girişimcilik eğitimi alan insanların yüksek girişimcilik potansiyeline sahip olduğunu göstermiştir. Bu çalışma Türkiye'nin farklı illerinden farklı disiplinlerde eğitim almış bireyleri de kapsamaktadır.

Keywords: Girişimcilik, Girişimcilik Eğilimi, Eğitim

1. Introduction

Entrepreneurship ecosystem is the social and economic environment that affects local and regional development. The phenomenon of entrepreneurship has gained a different momentum with the effect of globalization and technology; it has enabled the formation of new generation enterprises in this field. With this worldwide awareness, Turkey has started to pay attention to entrepreneurship policies.

The essential factor of entrepreneurship is that recognize opportunity, analyze the process, bring innovation and create employment to contribute to the growth of the economy. Entrepreneurs have a significant role due to they are creating new businesses. On the other hand, they are under risk because they are self-employed and they have non-fixed income. In this context, some improvements have been made that entrepreneurship training has been added to the curriculum in universities, simplifying the legislation by the government in line with the needs of new entrepreneurs and bringing various conveniences; supporting the structures such as funds, angel investments, increasing the number of entrepreneurship support programs.

Academic background is an important factor in entrepreneurship due to having theoretical knowledge. Some universities are supporting their students to improve their idea that can be a start-up in the future. These Universities named entrepreneurial universities or 3rd generation universities. The entrepreneurial university model, which is conducting its science and technology studies in a way to provide added value to the country's economy, in coordination with the industry also provides information and trained human resources needed by industry.

Entrepreneurial University was introduced by Clark (1998) that integrates the functions of university with entrepreneurship and creates a new university type. New generation universities are not just producers of human capital and workers who are ready for industry, they pursue academic entrepreneurship to strategically place and position themselves as important engines of sustainable technology development and economic growth, as a source of income and employment and also improve to cultural life (Yusof, 2009). The main aim of this support is to encourage the entrepreneurs, educate potential entrepreneurs.

This study concentrates on needed university education to increase the entrepreneurial tendency of university students who are potential entrepreneurs. University education that plays an important role in the innovative thinking and entrepreneurship ecosystem in Turkey will be investigated. In this study, it is aimed to investigate the factors that determine entrepreneurship tendencies on individuals who are at the begining of their career, and therefore have high entrepreneurial potential. The two-step research method was used in this study. Firstly, in-depth interviews were made with 13 entrepreneurs using the qualitative analysis method. The entrepreneurs were selected according to the following criterias; having innovative product/service, offering a product or service that is the first in Turkey or in the World, achieving the planned success, receiving award or investment, having multidisciplinary team. All entrepreneurs participants in the interview

have at least one of these criteria. In interviews with entrepreneurs, questions regarding their demographic and socio cultural structure and start-ups were asked. As a result of the interviews, factors affecting entrepreneurial intentions were determined. According to the findings from the interviews, the research model has been detailed. Using the quantitative analysis method, the effectiveness of the factors will be measured by conducting a survey with university students and young people who have graduated from the university in 10 years by using statistical analysis.

The main purpose of this study is to analyze the effects of the education and social environment individuals acquired during the university life process on entrepreneurship tendencies. In light of findings, suggestions have been made to improve entrepreneurship training at universities.

The broad scope of the study in keeping students throught Turkey and has ensured the participation of people who graduated from university in 10 years. Besides examining the demographic factors of the participants, assessments were made according to their competencies in the sub-branches of entrepreneurship such as technology and marketing and these effect on entrepreneurship tendencies has been examined.

2. Theoretical background and related research

2.1. Demographic and Socio-cultural factors on entrepreneurial tendency

Literature researches have shown that demographic factors have impact on entrepreneurship tendency. According to pre-Gartner reseraches, entrepreneurial tendency based on theory of features, individuals with personality traits. With this approach, a person is born as entrepreneur or not because it is an innate characteristic. Gartner argued that trait approaches have been unfruitful and that behavioral approaches will be a more productive perspective for future research in entrepreneurship(Gartner, 1989).

Koppl and Minniti (2003) defined entrepreneurship as a dynamic process of change in which individuals, having in unusual degree certain personal or psychological characteristics, undertake innovative activities while Shane and Eckhardt (2003) defined as it is the sequential process of discovery, evaluation and exploitation of future goods and services. From this point, entrepreneurship is a risky move. Gaining a competitive space in the market determines the success of entrepreneurship. Gaining sustainability is important for the lifecycle of a good or service.

According to McClelland (1941), any entrepreneurial activity consists of risk-taking, energetic activity, individual responsibility, and measure of results, the anticipation of future possibilities, and organizational skills (Baum, 2012). In the study of 'Personality in Entrepreneurship Tendency' by Bozkurt (2013), a questionnaire was applied to the students of Sakarya University, Faculty of Economics and Administrative Sciences to measure 'What kind of personality and demographic characteristics affect the entrepreneurship tendency?'. As a result of the study; even though the students want to succeed, it was concluded that they were unstable making risk, tolerance to uncertainty, innovative thinking, self-confidence. Although the students are low in terms of having

entrepreneurial personality characteristics, it is concluded that they tend to start their own businesses in the future and they think they will realize this target with their own personal development.

Socio-cultural factors which are education and environment directly have an impact on the decision to become an entrepreneur; the social environment enables the person to interact with the people around him to increase his knowledge, to benefit from the experiences of the entrepreneurs, which increases productivity and the candidates may be more inclined to become entrepreneurs.

Many studies have proved that culture has an impact on the decision to become an entrepreneur and it has been found that there is a relationship between the increase in the number of entrepreneurs and cultural values. Geert Hofstede explained culture as: "The condition of a human community having different characteristics from the other human community due to the joint programming of the mind" (Grove,2005).

The acceptance of entrepreneurial characteristics among people, the approval and encouragement of entrepreneurial behaviors and values facilitate the spread of entrepreneurship. Therefore, it is known that the values of the society, religion and life philosophy of the entrepreneur affect entrepreneurship (Börü, 2006).

Entrepreneurs who see good examples in their social environment are positively affected. In the regions where entrepreneurs are concentrated, many ideas, positive and negative aspects and solutions are shared and encouraged to start entreprises. Mc Clelland (1961) argued that societies with cultures that emphasize achievement would exhibit greater levels of entrepreneurship than societies that did not.

According to the social learning theory, risk taking behaviors can be viewed as learnable behavior often transmitted by parents or other influential individuals, and are shaped by the socio-cultural environment. Traits theorists would also recognise that the environment is a determiner of behavior as well as traits (Low and Mac Millan,1988) .

The society in which a person grows up affects an individuals personality as well as determining her socio-cultural status; they are influenced by family, friends and teachers. If the environment in which the individual lives or works is an environment with entrepreneurial characteristics, the individual is affected more quickly by these characteristics (TÜSİAD, 1987: 14). The family plays an important role in people's career plans; and also role models have a significant impact on entrepreneurs' adoption of entrepreneurship as a career. Successful entrepreneurs are exemplary by entrepreneur candidates. There are positive effects on the tendency to become an entrepreneur among children raised in the entrepreneuril family; such children dominate the entrepreneurship culture.

Paakkanen's research (2009) has revealed that the family had a significant effect on the person's choice to become an entrepreneur. In addition to being an entrepreneur in the family, this lifestyle can effect children's careers in children who grow up in family companies. Apart from being a role model, another effect of the family on the entrepreneur is their ability to provide financial support and coaching. The family factor which is

effective in setting an example for students' decision to establish their own business in the future has a significant relationship with the dimensions of self-confidence, need for innovation and success (Korkmaz, 2012).

Entrepreneurial intentions can be raised with the financial support and guidance provided by the family. According to the income level report entrepreneurs published in 2010 of the GEM report, consistent with international findings, Turkish people in the highest household income brackets are more likely to start a new company (Global Entrepreneurship Monitor, 2010). The percentage of 76 Turkish entrepreneurs are found in the highest income level, the percentage of 17 are found in the middle income level and only 8% of Turkish entrepreneurs come from the lowest income level (Global Entrepreneurship Monitor, 2010).

It is seen in the report by Global Entrepreneurship Monitor in 2012 that the highest rate of entrepreneruship in the world is between the ages of 25-34. Because of that entrepreneurship requires experience and financial support (Tulunay, 2010).

Koppl and Minniti (2003) defined entrepreneurship as a dynamic process of change in which individuals, having in unusual degree certain personal or psychological characteristics, undertake innovative activities while Shane and Eckhardt (2003) defined as it is the sequential process of discovery, evaluation and exploitation of future goods and services.

The process of establishing an enterprise is a process that requires the skill, behavior, and experience of the person. As the age progresses, responsibilities increase and it starts to decrease that people tend to take risks. So, as age progresses, there is a decrease in the desire to establish an initiative.

Entrepreneurship is a behavioral characteristic of persons. This behavior requires entrepreneurial skills and qualities, it also implies participation in the competitive process. Hence it requires the ability to adapt to change.

The gender factor in entrepreneurship has been the subject of many researches. Due to women's responsibilities in social life it is among the common ideas that women are not prone to entrepreneurship.

Entrepreneurial activities affects not only the entrepreneur, but also the entrepreneur's family. Single individuals can take the risk of failure more easily because they do not have a dependent family (Tulunay, 2010). In other words, the responsibilities of individuals in their social life are affective on the entrepreneurial intentions.

Although there are changes between societies, it is fact that there are some social obstacles for women to become entrepreneurs. According to the 2018 Global Entrepreneurship Indicator (GEM) Total Early Entrepreneurship Activity (TEA) rates, which show the prevalence of new entrepreneurs between the ages of 18-64, starting from 42 months, starting East and South Asia, Europe and North America, Latin America and the Caribbean and the four regions, Middle East and Africa; in general, the proportion of women is lower than men. In Indonesia, Thailand, Panama, Qatar, Israel, Madagascar and Angola, although the rates are close to each other or the proportion of women is higher, the

proportion of men with new ventures is higher worldwide. The proportion of women in the North American groups and European including Turkey has remained at a low level compared to other regions. The proportion of women close to half of the countries is below 5 percent. This rate is changed on men; countries of 70 percent has the percentage of 10 men entrepreneurs. Turkey's rank is 47 in the rate of the population of entrepreneur women in 49 countries (Global Entrepreneurship Report, 2019).

In a study conducted by Kılıc and others (2012), it is seen that men are more innovative in terms of gender. The result of this study can be explained as men are more independent (Kaya, 2011). In the another study conducted by Kaygın (2011), it was observed that males are more dominant in the need for success and tolerance against uncertainty.

According to Istanbul Development Agency's project that Young Entrepreneurship Ecosystem analysis, within scope of entrepreneurship in Istanbul, Turkey it seems to be average age of 33 (ISTKA,2016). The reason for this can be the knowledge of the ecosystem and the courage to venture with the work experience gained after university graduation.

The GEM report in 2019 showed that people in their early careers may not have accumulated the resources, credibility and connections of older entrepreneurs, and they may be financially constrained with responsibilities such as college loans, mortgages and children (Global Entrepreneurship Monitor, 2019).

According to the research conducted by Azoulay and others; experienced people are advantageours in terms of financing, social environment and business relations, access to markets. Although young people have advantages such as the desire to innovative and being active, they do not have opportunities such as experience, capital, social networks as they get older. This situation creates negativity for young entrepreneurs (Auzlay and Kim, 2019). According to the ISTKA (2016) report; entrepreneurs have an average of 10 years of work experience. On the other hand, the successful entrepreneurs are examined; they have an average of 9 years of experience. When the failed entrepreneurs are examined, they have an average of 13 years of working experience. This maintaining the current situation in entrepreneurs with an average of 13 years of work experience, avoiding risk taking is interpreted as being connected to the routine as a result of some concerns such as the economy.

Many studies have shown that the most important factor in being an entrepreneur is individual features. So, having an entrepreneurial behavior is the key point to be an entrepreneur. However, according to Drucker, entrepreneurship is a discipline; Drucker evaluates the entrepreneurship as a learnable feature. Moreover, a person who receives a basic entrepreneurship education providing competence in administrative terms, is more likely to engage in an entrepreneurship activity in the future (Dutta, 2011).

The results of the research have done by Aksoy and Yalçınsoy (2017), entrepreneurship tendency has changed according to development in social and technological features. It can be interpreted as increasing the desire to succeed that following technologiy closeyly and innovative look.

According to the studies; negative conditions effect entrepreneurship tendencies conducted lack of education, financing problems, technological insufficiency, labor force inadequacy, ignorance of research and development process, weak personal skills and psychological factors (Tiftik, 2014). The results of research has done by Tiftik (2014) entrepreneurship tendency has changed according to development in social and technological features. In other words, the ability to see and apply opportunities and to draw a road map for one's self removes their concerns. In this way, negaitive situations of entrepreneurship may be reduced.

2.2. Effect of entrepreneurship education on entrepreneurial tendency

It is agreed in the literature review that entrepreneurship and innovation are important tool to gain competitive advantage in the global market of the 21st century. Sustainable development, creating new employment areas, gaining economic growth and getting welfare are depend on the success rate on the global market.

In the year of 1996, Morris and Sexton have defined the entrepreneurship as the relationship between entrepreneurs and their surroundings and the role government plays in creating the economic, political, legal, financial and social structures that characterize a society and give shape the environment for entrepreneurs (Morris & Sexton,1996).

Awareness of entrepreneurship and innovation in accordance with the general trend in public institutions in Turkey has increased considerably. In particular, within the scope of preparations for the 10th Development Plan covering the years 2014-2018, an entrepreneurial commission was established apart from the specialized commission on Small and Medium-Sized Entreprises (SMEs) and proposals of the commission made a significant contribution to the plan. Turkey Scientific and Technological Research Council (TUBITAK) to develop the entrepreneurial ecosystem and Small and Medium-Sized Entreprises, Development and Support of the Presidency (KOSGEB) support system has been revised to meet the needs of new entrepreneurs and new support tools were implemented (Ministry of Development, 2013).

Entrepreneurship trainings is provided according to the requests from institutions such as Chambers of Commerce, Industry foundations, non-governmental organizations, and the needs determined by KOSGEB in the region (Gözek 2006: 19). Training are given to prepare a business plan, business establishment stages and general information, market research and applicability of the business idea, studies for dealing with problems.

As in almost all fields, education is an important factor in entrepreneurship. As entrepreneurship is a learnable discipline, the innate abilities of entrepreneurs can be developed, supported or prevented in life (Yılmaz ve Günel, 2011: 7). There is a connection between the education of individuals and their entrepreneurship tendencies. Education contributes not only to business life but also to individuals and society in all areas of life. Entrepreneurship training aims to learn throughout the life of the individual, to be able to do necessary studies and researches on entrepreneurship, to be able to recognize and follow opportunities, to be able to think objectively and to come up with new ideas (Çetinkaya Bozkurt 2011: 29). Entrepreneurship education can impress people that entrepreneurship is a career, providing insights and skills to start their own businesses and

encourage them (Alaybeyoğlu Küçük 2014: 58). In the Global Entrepreneurship Report prepared by Amway, it was emphasized that entrepreneurship education increases people's belief that they can establish successful businesses, enables young people to think of entrepreneurship as a career and strengthens their tendency towards entrepreneurship (Amway Global Entrepreneurship Report, 2014: 6). This education is especially effective at universities brings a different perspective to young people about entrepreneurship (Çetinkaya Bozkurt 2011: 21).

In the Entrepreneurship Education Report (2014) prepared by the European Commission, it is stated that the purpose of entrepreneurship training should be much broader than teaching candidate managers or company employees the necessary skills as in business education or teaching how to write a business plan. Because entrepreneurship training includes the development of other skills as well as providing business start-up knowledge (Valerio vd, 2014: 22). These skills include creativity, self-confidence, effective problem solving, seeing potential, communication, networking, risk taking, leadership and project evaluation.

Education is vital to create an understanding of entrepreneurship, to develop entrepreneurial capabilities, and to contribute to entrepreneurial identities and cultures at individual, collective and social levels (Rae, 2010: 603). Therefore, an individual, who receives a basic entrepreneurship education providing competence in administrative terms, is more likely to engage in an entrepreneurship activity in the future (Dutta, Li and Merenda, 2011: 174).

A study was carried out on the graduates who completed the University of Arizona's Berger Entrepreneurship Program between 1985 and 1999. This study determined that entrepreneurship had an effect on generating enterprises and creating welfare. Furthermore, it was concluded that entrepreneurship education had positive impacts on individuals' risk taking, enterprise education, inclination to be self-employed, and income/welfare generation. Those who received entrepreneurship education earned 10% higher monthly income in comparison with those who did not. In addition, and more interestingly, it was found that the graduates who had received this education gained 62% more personal assets than those who had not received (Charney and Libecap, 2000: 1-7).

Entrepreneurship education is an important method encouraging entrepreneurship because education 1) gives a feeling of independence and self-confidence to individuals, 2) enables the recognition of alternative career options, 3) broadens the individuals' horizons by enabling them to better perceive the opportunities, and 4) provides the knowledge that individuals will use in developing new business opportunities. Through adequate entrepreneurship education, an individual acquires the skills and knowledge needed for establishing and developing a new business (Paço et. al., 2015: 60).

The report "Educating the Next Wave of Entrepreneurs, Unlocking Entrepreneurial Capabilities to Meet the Global Challenges of The 21st Century", which was published by the World Economic Forum and focuses on entrepreneurship education, states that there are a number of approaches which are being effectively utilized and which support the call to action to "mainstream" entrepreneurship education. These type of educations are

developing leadership and life skills, embedding entrepreneurship in education, taking a crossdisciplinary approach, utilizing interactive pedagogy, and leveraging technology. And the basic factors of success enabling efficient entrepreneurship education are considered as the entrepreneurial ecosystem, developing effective educators, curriculum development, engagement of business, advancing innovation, and sustainable funding (WEF, 2009: 20-22).

2.3. Entrepreneurial Universities

Along with the development of economies, the role of universities has evolved over time; universities have to train their students to cope with the requirements of the global world, so universities assume duties according to the requirements of the economy. Research on this subject has been continuing rapidly in recent years; Olivares and Wetzel (2014) analyze the universities' efficiency with relevant to economies of scale and scope, it is observed that globalization and competitive environment has induced the public institutes of higher education to utilize their resources more efficiently by expanding their operations and activities to broader fields. Universities provide feasible solutions to industries and business communities, in order to transfer knowledge and fostering innovation or entrepreneurship with establishing incubators (Amezcua, 2010).

Universities are at the center of successful economies in the world. For example; University of California, one of America's leading universities has undertaken tasks such as producing scientific knowledge, making great inventions, creating innovations, supporting new firm formations, providing new business opportunities, creating new income streams on an individual and corporate basis (Greenspan, 2006). Recently, universities ait to contribute to society, economy, the level of welfare and quality of life economically, socially and culturally as well as traditional education methods.

Entrepreneurship courses have firstly started in the United States in the 1940s. Accordingly, entrepreneurship education has increased considerably in the developed World (Amezcua, 2010). After that large number of colleges and universities have accepted entrepreneurship as a fundamental area (Lee, 2005). Many schools started to offer entrepreneurship courses such as "Entrepreneurship & Venture Creation," "Small Business Management," "Enterprise Development," etc. as an important part of their curricula (Solomon, 1993). Some examples of entrepreneurship-related curricula in the USA are Babson College undergraduate, MBA, and executive education programs in entrepreneurship. The undergraduate program offers twelve elective entrepreneurship courses, while its MBA program has fifteen independent entrepreneurship courses that fall into three broad categories including "Foundations Classes (fundamental and holistic entrepreneurship skills)," "Specialty Classes (specific discipline within entrepreneurship)," and "Support Classes (deep knowledge in one specific area study)." This MBA program focuses on "educating creative leaders capable of initiating, managing, and implementing change." The executive program is designed to promote opportunity recognition, team development, and resource leveraging (http://www3.babson.edu/ESHIP/academics).

The other program is the Sloan School of Management at MIT as "New Product and Venture Development" MBA program track. The track offers about seventeen entrepreneurship-related subjects that consist of marketing, sales, strategy, finance, new product development, and other disciplines required to guide the creation and growth of new high-tech ventures. There are more than 1500 colleges and universities offer entrepreneurship-related training and more than 100 active university-based entrepreneurship centers in U.S (Charney and Libecap, 2000). Small Business Management, Entrepreneurship, and New Venture Creation are the most frequently offered classes in two- and four-year colleges in the U.S and Small Business Management is predominantly taught by colleges (Solomon, 2002).

After the years, the financial and economic crises in 2008 and the subsequent effects of the global recession have led to emergence of a new economic era with important effects on entrepreneurship education (Rae, 2012).

Companies having success in the sector and university collaborations are beneficial to students can go beyond theoretical knowledge by learning the entrepreneurship ecosystem in real-time.

As Pahurkar (2015) stated in his research, entrepreneurial universities can undertake various entrepreneurial activities as follows; estanblishing technology parks, assisting with new venture start-ups, contracting research, setting up executive education or industry training courses, providing assignment consultation, providing research funding and grants, undertaking publication and documentation of research activities, arranging participation in international research exhibitions and conferences. Additinionally of these activities, universities should take role for the activities of patenting, licensing and spin-off venture formation.

According to the Entrepreneurial and Innovative University Index was published by TUBITAK in 2018, assessments are made on 50 universities. The index ranks 19 indicators in four dimensions: 'scientific-technological research competence', 'intellectual property pool', cooperation and interaction' and 'economic contribution and commercialization'.

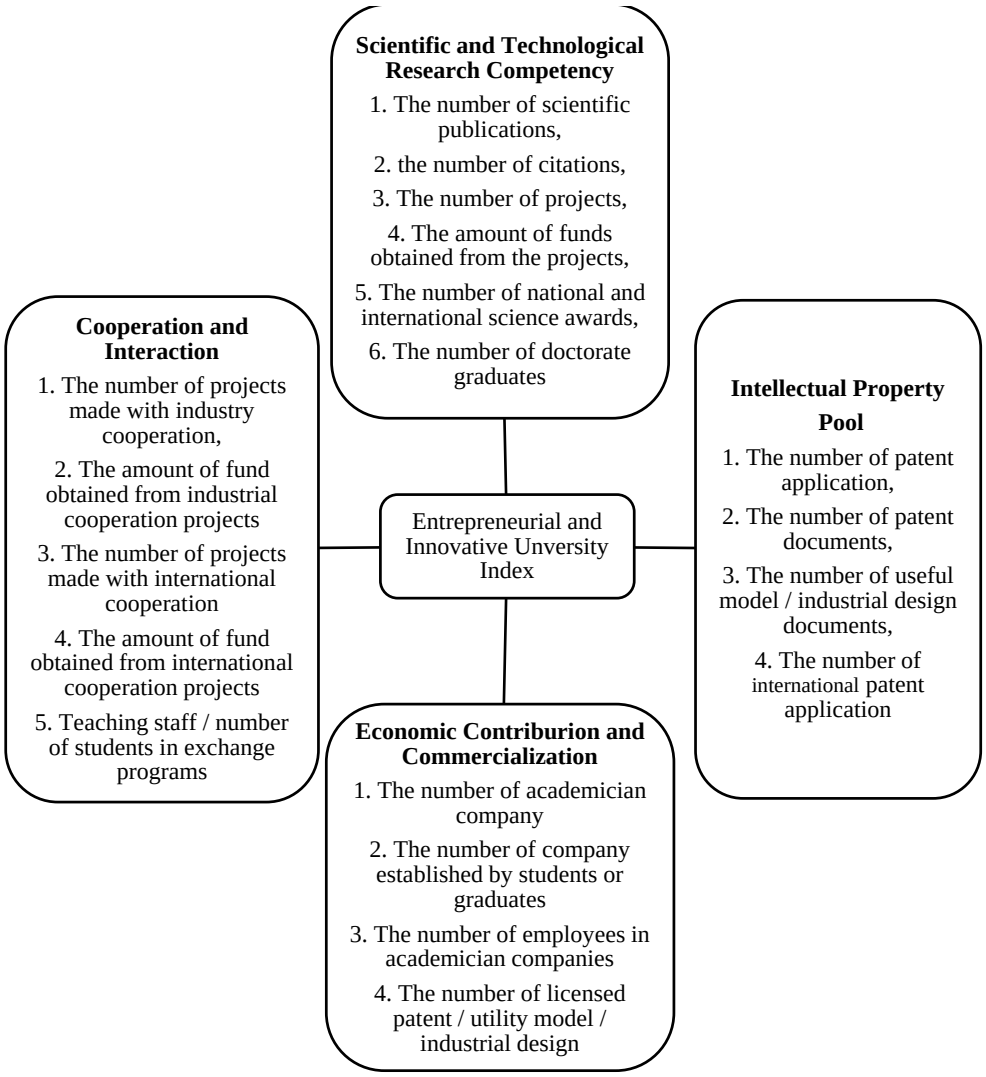

Figure 1 Entrepreneurial and Innovative University Index (TUBITAK, 2020)

Data under 19 indicators were provided by TUBITAK, YÖK, Ministry of Industry and Technology, TURKPATENT, KOSGEB, European Union Education and Youth Programs Center Presidency, TTGV, TÜBA and Universities. The top 10 universities and their scores are listed in the Table 1 below.

Table 1 Entrepreneurial and Innovative University Index (TUBITAK, 2020)

University	Total	Scientific and Technological Research Competency	Intellectual Property Pool	Cooperation and Interaction	Economic Contriburion and Commercialization
ODTU	93,16	23,63	16,24	28,54	24,75
İTÜ	90,16	21,93	15,89	27,59	24,75
Sabancı University	85,49	18,08	15,16	27,90	24,36
Bilkent University	84,42	21,30	14,02	26,05	23,05
Boğaziçi University	83,33	20,55	15,46	28,06	19,26
Yıldız Teknik University	81,40	17,18	17,54	24,10	22,58
Gebze Teknik University	77,82	18,18	9,93	24,64	25,07
Hacettepe University	75,93	20,18	12,51	24,44	18,80
İzmir Institute of Technology	75,64	20,99	9,30	24,93	20,42
Ege University	70,66	18,37	10,29	25,00	17,00

The report that is 'Effects and Impact of Entrepreneurship Programs in Higher Education' published by the European Commission states that entrepreneurship education in higher education improves students' basic competence in entrepreneurship, reinforces students' entrepreneurial intentions, and increases the employability. Additionally, it is mentioned on the report that entrepreneurship education is disseminated to all disciplines and delivered through compulsory courses in universities, emphasizes that the post-education monitoring activities should be performed repetitively (European Comission, 2013).

It is emphasized on European Commission's Entrepreneurship 2020 Action Plan that entrepreneurial education and training to support growth and business creation. Investment in entrepreneurship education is evaluated as the highest yield return for Europe. Thanks to entrepreneurship education, whether students establish an enterprise or not, they can improve their business knowledge and basic attitudes and skills that include creativity, initiative-taking, decidedness, team work, risk taking, and sense of responsibility (European Comission, 2013).

The World Economic Forum publised the report named as 'Educationg the Next Wave of Entrepreneurs, Unlocking Entrepreneurial Capabilities to Meet the Global Challenges of the 21st Century', it was focused on entrepreneurship education, states that there are a number approaches which are being effectively utilized and which support the call to action to 'mainstream' entrepreneurship education. These approaches were listed as developing leadership and life skills, embedding entrepreneurship in education, taking a cross-disciplinart approach, utilizing interactive pedagogy, and leveraging technology. The basic factor of success in entrepreneurship education was considered as the entrepreneurial ecosystem, developing effective educators, curriculum development, engagement of business, advancing innovation, and sustainable funding (WEF, 2009).

3. Conceptual Framework

3.1. Research Model

University students are potential entrepreneur candidates due to being at the beginning of their careers. In addition, according to the researches, the entrepreneurship tendency of people starts to decrease over the years after graduation. Research conducted by ISTKA (2016) has shown that entrepreneurs in Turkey who are members of entrepreneurship centers have an avarage of 10 years of work experience and successful entrepreneurs have a maximum of 9 years of work experience. Their social lives and responsibilities are effective in these intentions. Research's main aim is to find effective factors on entrepreneurship tendency. The research model has consisted of one dependent variable which is called entrepreneurship tendency and two main independent variables named as demographic factors and socio-cultural factors.

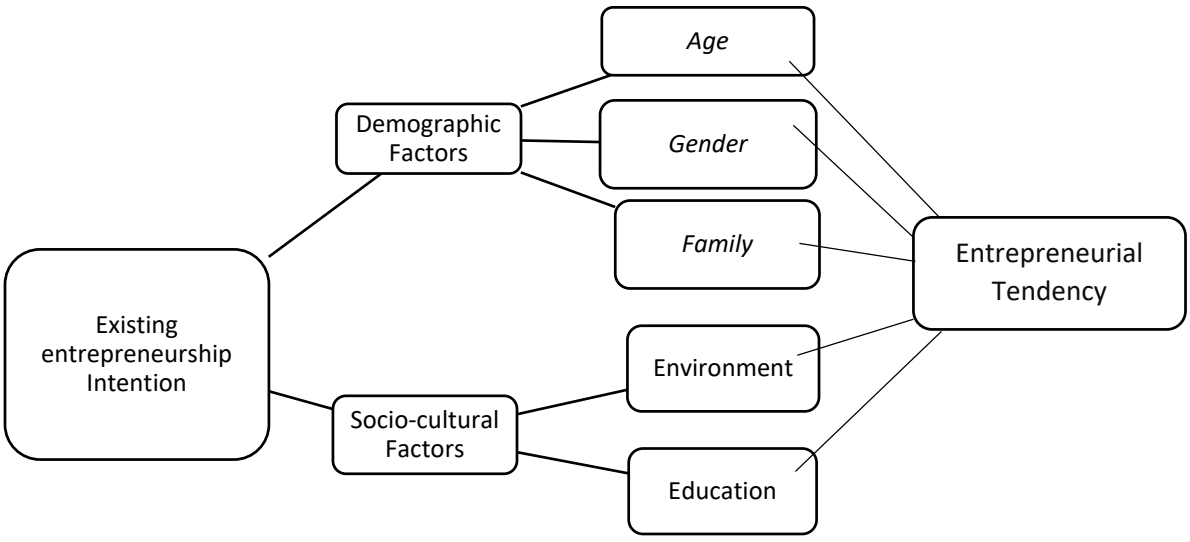

Figure 2 Research Model

The research method is based on qualitative and quantitative analysis. Firstly, qualitative analysis was used to get the factors for having entrepreneurial tendencies by in-depth interviews. Data was collected through in-depth interviews with 13 innovative entrepreneurs selected to create the study sample. In the first part of the research, which was carried out qualitatively to find answers to the research questions. In the interviews, the entrepreneurs were asked questions about their demographic features, socio-cultural structures, start-up teams, and their opinions about innovation. The questions consist of open-ended questions; 1 question from demographic factors including age, education, marital status, number of siblings, having children; 3 questions from socio-cultural, including education and social environment; 5 questions from start-ups, including team, product, financial structure, industry, success; and 3 questions were prepared for views including innovation and entrepreneurship.

The distribution of the participants according to their features is given in the Table 2.

Table 2. Demographic Features of Entrepreneurs

Code	Gender	Age	Education Background	Marital Status	Number of Siblings	Having Children
E1	M	33	Bachelor Degree / Management Information Systems, Yeditepe University	Married	1	0
E2	M	46	Bachelor Degree / Electronics and Communication Engineering, Istanbul Technical University	Married	1	2
E3	F	37	Bachelor Degree / Food Engineering, Pamukkale University		1	0
E4	M	40	Bachelor Degree / Computer Engineering, Istanbul Technical University	Single	1	0
E5	F	28	Master's Degree / E-commerce and Technology Management, Yeditepe University	Single	1	0
E6	M	34	Master's Degree / Financial Engineering, Kadir Has University / Information Technologies, Sabancı University	Married	1	2
E7	F	23	Bachelor Degree / Advertising Desing and Communication, Yeditepe University	Single	1	0
E8	F	28	PhD Student / Dentistry, Yeditepe University	Single	0	0
E9	M	31	Master's Degree / Biotechnology, Ege University	Married	1	0
E10	F	-	Doctorate Degree / Pharmacy, University of Minnesota		1	0
E11	F	30	Master's Degree / Biomedical Engineering, Erciyes University	Single	2	0
E12	M	50	Bachelor Degree / Public Administration, Anadolu University	Married	1	2
E13	M	26	Bachelor Degree / Advertising Design and Communication, Yeditepe University	Single	1	0

When the family structures of the entrepreneurs participating in the study were examined, it has observed that three of them had an entrepreneurship story from their families.

Although sectors differ, the majority of entrepreneurs concentrate on technological products. The product/services in which entrepreneurs operate and their innovative aspects are given in Table 3.

Table 3. Products/services of entrepreneurs

Code	Product / Service	Innovative Aspects	Foundation Year
E1	Personal Defense Device	"The device can take a picture, take the location of the scene, and sending emergency notification."	2015
E2	Sustainable Digital Marketing Services	"Companies can start their marketing processes by choosing the most suitable road maps for them. People working freelance earn money by having the opportunity to learn and practice for themselves along with application-based online training."	2019
E3	Digital Consultation	"Supplying connection with foreign relations in a short while."	2007
E4	E-commerce	"Removing barriers in fields of software, bank, cargo in front of people or institutions who want to e-commerce."	2015
E5	E-commerce	"Having first woman illustration used in the packaging of coffee in Turkey."	2015
E6	Digital Platform	"Verifying technical abilities according to candidates data on social platforms, at the same time measuring their soft skills and matching them with the appropriate technology company."	2018
E7	Blockchain	"Adapting blockchain to daily life."	2018
E8	Medical Technologies	"Sending a photo to the dentist consultant through the application. Adding image processing technology on the application."	2019
E9	Bio-technology	"Working in accordance with land and climate and make proven products."	2019
E10	Sun Protection	"Production of sun protection cream with green tea."	2019
E11	Hospital-type Sperm Software	"Doing a private test at home. And also adapting image processing"	2017
E12	Heating Fabrics	"Developing smart textiles that emit heat and transforming them into products that can be used in different applications that need heating."	2016
E13	Education Management	"Providing regular reports to HR, managers, and employees about employees' language developments."	2019

As a result of the interviews with the entrepreneurs, the factors that affect their entrepreneurship intentions and which decisions play a role in their success are examined. Survey questions were prepared in the light of findings from the interviews.
During the quantitative analysis, the questionnaire which reflects the effectiveness of independent variables of entrepreneurship tendency is formed. The questionnaire was created to include demographic and socio-cultural factors. The questionnaire consists of

closed- ended questions, 5 point scale ranging from strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4), and strongly agree (5).

3.2. Findings from In-depth Interviews

When all these demographic structures are analyzed, the number of siblings and having children has not an effect on the entrepreneurship tendency. In addition, all married entrepreneurs who participated in the research are men. Measuring the entrepreneurship tendencies of married individuals by including more comprehensive research including women and married entrepreneurs will give more reliable resultsIt is seen that the age distribution of the entrepreneurs participating in the research is predominantly 30 and overages. The entrepreneur coded E10 is not included in the average since she does not tell his age. The average age of the entrepreneurs interviewed is 33. Two of the entrepreneurs participating in the research did not want to talk about their marital status; five of them are married and six of them are single. Additionally, three of the entrepreneurs participating in the research have children. When the family structures of the entrepreneurs participating in the study were examined, it was observed that three of them had an entrepreneurship story from their families. In their childhood, they think that their fathers might have been influenced by their entrepreneurial adventure.

One of the entrepeneurs participating in the research is the only child of the family; other have at least 2 siblings. When all these demographic structures are analyzed, it cannot be said that the number of siblings and having children has an effect on the entrepreneurship tendency. In addition, all married entrepreneurs who participated in the research are men. Measuring the entrepreneurship tendencies of married individuals by including more comprehensive research including women and married entrepreneurs will give more reliable results. As a result, 10 of the entrepreneurs previously actively worked in the sector. It can be concluded that the experiences that entrepreneurs have in working life have a positive effect on realizing their ideas. Additionally, it has been observed that the experience and network gained by the entrepreneurs as E2 and E12 in working life has an important effect on today's success. Information about startups set up by entrepreneurs will be given. Accordingly, the structure of the start-ups, teams, innovative aspects and the financial supports entrepreneurs receive will be examined. In addition, the areas that they have difficulty in the establishment phase will be mentioned.

The products of entrepreneurs numbered E1 and E10 are not commercialized yet, they do not have products in the market. Entrepreneur numbered E1 stated that they started pre-sales transactions. Entrepreneur numbered E10 stated that they were affected by Covid-19 process and that they have not yet signed an agreement for sale. Among the 13 entrepreneurs, 10 entrepreneurs have multidisciplinary team. As a result of the interviews, if there are no employees from different disciplines in the core team, they need human resources with options such as freelance, part-time, and interns. In addition, the majority of the entrepreneurs talked about the difficulties of managing the marketing and customer relations side while the company was in the growth phase. And in an ecosystem where a person is involved in many areas, the presence of people who are specialized in different disciplines is a factor that may affect their success. As a result of these findings, having a multidisciplinary team has an impact on start-up success.

As entrepreneurship started to become widespread in Turkey, entrepreneurial universities started to be created and special education programs were prepared. When Table 4 is analyzed, only two entrepreneurs seem to have received entrepreneurship training at the university.

Table 4 Entrepreneurship Courses

Code	Entrepreneurship Training in University	Entrepreneurship Training from Outside
E1	X	X
E2	X	X
E3	X	V
E4	X	X
E5	V	V
E6	X	V
E7	X	X
E8	X	X
E9	V	X
E10	X	X
E11	X	V
E12	X	V
E13	X	X

Entrepreneurs were asked about the academic backgrounds of the team members in many areas such as marketing and designing the product or service offered by the founder in the entrepreneurship ecosystem. Detailed information about the team members' academic background of the start-ups has given in Table 5.

Table 5 Team members' academic background of the start-ups

Code	**Founders' Academic Background**	**Team Members' Academic Background**
E1	Information Systems, Bachelor Degree	Computer Engineers, Designers, Electrical and Electronic Engineer, Software Engineer, Industrial Designer.
E2	Electronics and Communication Engineering, Bachelor Degree / MBA, Master Degree	Electonic Engineer, Advertising and Public Relations, Marketing, Sociology, Business Administration. And also there are over 120 team members as freelance having different backgrounds.
E3	Food Engineer, Bachelor Degree	The entrepreneur works alone. She has different teams to support. Disciplines vary in these teams.
E4	Computer Engineer, Bachelor Degree	Management Information Systems, Economics.
E5	Public Relations, Bachelor's Degree / E-commerce, Master's Degree	The entrepreneur works alone. There are 2 worker as freelance.
E6	Advertising Design and Communication, Bachelor's Degree	Mechanical Engineer, Computer Engineer.
E7	Financial Engineering, Master's Degree / Information Technology, Master's Degree	Computer Engineer, Business Analyst. But now the founder is working alone.
E8	Dentist, PhD Student	Mechatronics, Computer Engineering, Bio-medical.
E9	Business, Bachelor's Degree / Bio-technology, Master's Degree	Agricultural Technology and Microbial Fertilizers.

E10	Pharmacy, Doctorate Degree	Molecular biology, Genetics and Pharmacy.
E11	Biomedical Engineer, Master's Degree	Bio-medical Engineers. They received help from students as trainee from many different disciplines working in the background.
E12	Public Administration, Bachelor's Degree	Metallurgical and Materials Engineering
E13	Advertising, Bachelor's Degree	Management Information Systems, Business Administration.

The entrepreneur coded as E8 stated that they received short training about each other's fields in order to speak the same with team members. In addition, the entrepreneur coded as E11 stated that the founding team from the same discipline is effective in speaking the same language and work practical. E11 also stated that this was not enough and that the support given by students according to their interests was very effective.

Among the 13 entrepreneurs, 10 entrepreneurs have multidisciplinary team. As a result of the interviews, if there are no employees from different disciplines in the core team, they need human resources with options such as freelance, part-time, and interns. In addition, the majority of the entrepreneurs talked about the difficulties of managing the marketing and customer relations side while the company was in the growth phase.

10 of the entrepreneurs previously actively worked in the sector. It can be concluded that the experiences that entrepreneurs have in working life have a positive effect on realizing their ideas. Additionally, it has been observed that the experience and network gained by the entrepreneurs as E2 and E12 in working life has an important effect on today's success.

3.3. Hypothesis

H1: The presence of an entrepreneur in the family influences entrepreneurship tendency.

The family plays an important role in people's career plans; and also role models have a significant impact on entrepreneurs' choice of entrepreneurship as a career. As mentioned on the literature review, there are positive effects on the tendency to become an entrepreneur among children raised in the entrepreneurial family; such children dominate the entrepreneurship culture. Korkmaz (2012) study was conducted to determine whether the students of business administration have an entrepreneurial personality and to determine what psychological, demographic and family factors are effective in entrepreneurship tendencies.

Paakkanen's research (2009) has revealed that the family had a significant effect on the person's choice to become an entrepreneur. In addition to being an entrepreneur in the family, this lifestyle can effect children's careers in children who grow up in family companies. According to the study of Yüzüak (2010), it was observed that the presence of entrepreneurs in the family, the education of the parents and the entrepreneurship training received has an effect on entrepreneurship tendency. When the family structures of the entrepreneurs who attended in-depth interviews in this study were examined, it was observed that three of them had an entrepreneurship story from their families. In their childhood, they think that their fathers might have been influenced by their entrepreneurial adventure.

H2: Individuals between the ages of over 25 are more likely to be entrepreneurs than age group over 18-25.

According to Istanbul Development Agency's project that Young Entrepreneurship Ecosystem analysis, within scope of entrepreneurship in Istanbul, Turkey it seems to be average age of 33 (Figure 3). The reason for this can be the knowledge of the ecosystem and the courage to venture with the work experience gained after university graduation. On the other hand, it is also a reason that they have accumulated equity to set up their dream business by working.

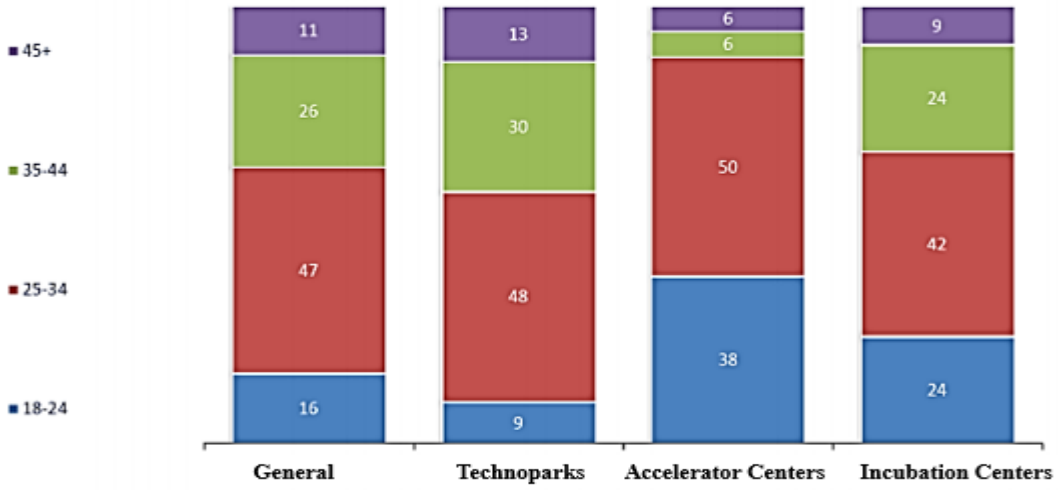

Figure 3 Age and Entrepreneurship Tendency (ISTKA, 2016)

H3: Individuals' income influences their tendency to become entrepreneurs.

Entrepreneurial youth can be raised with the financial support and guidance provided by the family. According to the income level report entrepreneurs published in 2010 of the GEM report, consistent with international findings, Turkish people in the highest household income brackets are more likely to start a new company (Figure 4). The percentage of 76 Turkish entrepreneurs are found in the highest the percentage of 33 income level, the percentage of 17 are found in the middle 33% income level and only 8% of Turkish entrepreneurs come from the lowest 33% income level.

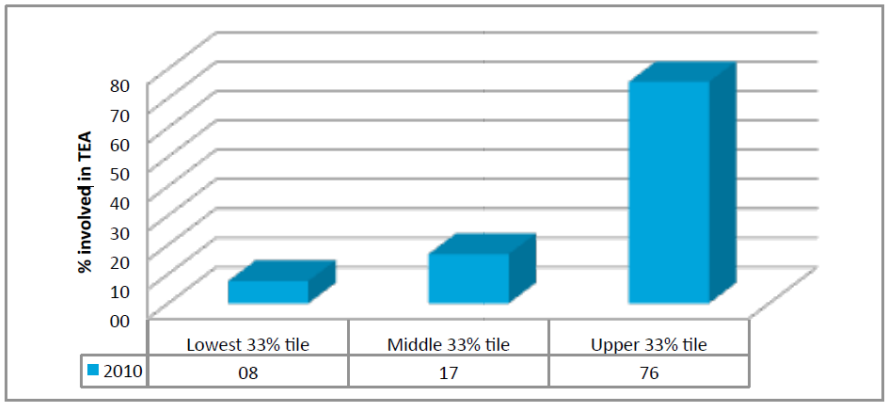

Figure 4 Entrepreneurship Activity (Global Entrepreneurship Monitor, 2010)

As a result of interviews with entrepreneurs, it has been observed that people accumulated capital by working in the sector for a while to realize their entrepreneurial ideas.

H4 : Individuals' marital status influences their tendency to become entrepreneurs.

The marital status can play a decisive role in entrepreneurial intent as it increases the responsibilities of individuals. Single individuals can take the risk of failure more easily because they do not have a dependent family (Tulunay, 2010: 56). This may cause women to take more responsibility when they are married in social life.

H5 : Individuals who have received entrepreneurship training are more than those who have not received entrepreneurship tendency.

Aldrich and Wiedenmayer (1993) has been examined that the socio-political environment may have positive or negative effects on entrepreneurship. External effects can determine the relationship between entrepreneurial behavior and performance. The supportive environment increases motivation to establish and growth an enterprise such as reducing legislation for the establishment of enterprises, providing training and mentoring, financial resources, supporting to prototype and also the impact of entrepreneurship education in the region.

According to study by Ayar (2019), the training of those who participated in the applied entrepreneurship training of İŞKUR had positive effects on the entrepreneurship tendency.

H6 : The entrepreneurship tendencies of individuals who have taken place in multidisciplinary groups are higher than others.

Teams can have an important role in start-ups' success. In the entrepreneurship ecosystem, the founder must have competence in many areas such as marketing, designing, finance, etc. Although all these competencies are not possible by a single person, it is advantageous to have experts in the field.

H7: Individuals' technological competence influences their tendency to become entrepreneurs.

The results of the research have done by Aksoy and Yalçınsoy (2017), entrepreneurship tendency has changed according to development in social and technological features. It can be interpreted as increasing the desire to succeed that following technologiy closeyly and innovative look.

H8 : The entrepreneurship tendencies of individuals who think that they can easily team up are higher than others.

Among the negative conditions that affect entrepreneurship tendencies; lack of education, financing problems, technological insufficiency, lack of workforce, ignorance of research and development process, weak personal skills, and psychological factors were observed (Tiftik, 2014).

H9 : The entrepreneurship tendencies of individuals who have work experience are higher than others.

Azoulay et al. (2020) emphasized that experienced people are more efficient in terms of financing, social environment and access to business relations markets. As a result of their research, it has been proven that experienced people are more successful. According to the research conducted by Azoulay and others; experienced people are advantageours in terms of financing, social environment and business relations, access to markets. Although young people have advantages such as the desire to innovative and being active, they do not have opportunities such as experience, capital, social networks as they get older. This situation creates negativity for young entrepreneurs (Pierre Azoulay, Benjamin F. Jones, J Daniel Kim, Javier Miranda, ―Age and High-Growth Entrepreneurship‖, NBER Working Paper, April 2018, s.3,28-29.)

4. Research methodology

4.1. Measurement

The two-step research method was used in this study. In the first stage, in-depth interviews with 13 entrepreneurs were made with innovative entrepreneurs using a qualitative research method. To determine interview questions in our study were examined the literature. The entrepreneurs were selected according to the following criteria; having innovative product/service, offering a product or service that is the first in Turkey or in the World, achieving the planned success, receiving award or investment, having multidisciplinary team. All entrepreneurs participants in the interview have at least one of these criteria. In interviews with entrepreneurs, questions regarding their demographic and socio-cultural structure and start-ups were asked. As a result of the interviews, factors affecting entrepreneurial intentions were determined. According to the findings from the interviews, the research model has been detailed. In the second stage, the quantitative method was used. In this section, a survey was conducted with target university students and young people who graduated from university within 10 years. The questionnaire consists of closed- ended questions, 5 point scale ranging from strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4), and strongly agree (5).

4.2. Sample and data collection

All individuals with the potential to be an entrepreneur and entrepreneur in Turkey are research universe. The universe of research has been limited by groups that could represent the universe were chosen following the purpose of the research.

Entrepreneurship has been included in the education system in our country in recent years, so entrepreneurship education is not provided in all faculties. However, individuals who are not trained in entrepreneurship are aware of entrepreneurship incentives through various media channels. With the increase of awareness, the number of people who want to become entrepreneurs also increases. For this reason, research was conducted by reaching participants from all disciplines and from different provinces in Turkey.

Although interviews with entrepreneurs were planned face-to-face to increase reliability, six interviews could not be held face-to-face due to the Covid-19 pandemic. Sample data is collected from 303 participants in Turkey by using online questionnaire in order to gain speed and convenience.

In the first stage, data was collected through in-depth interviews with 13 innovative entrepreneurs selected to create the study sample. With the maximum diversity sample, entrepreneurs from different sectors, different universities, different cities, and different ages were tried to be chosen.

While selecting the research group consisting of entrepreneurs, the following features were taken into consideration;

- Have at least a Bachelor's degree,
- Having the innovative side in product/service,
- Offering a product or service that is the first in Turkey or in the world,
- Have achieved the planned success,
- Have received awards / investments,
- Have multidiscipliner team

In order to reach the determined entrepreneurs, the researcher received help from her own social environment, reached the entrepreneurs via LinkedIn, YUTTO (Yeditepe University Technology Transfer Office), Sabancı University Inovent & SUCOOL Tech-Based Start-up Accelerator Center and Erciyes Teknopark provided a conncetion with the entrepreneurs.

The entrepreneurs who participated in the study during the in-depth interview process was aimed to express themselves comfortably and freely and were interviewed in an environment where they felt comfortable and preferred. Before the meeting, the participants were informed about the subject, importance and research process of the research, and approval was obtained for collecting the data by recording sound. The seventh interview was held in writing because the entrepreneur stated that she could express herself more easily in writing due to the hoarseness problem. The eighth and subsequent interviews were conducted online, as face-to-face interviews would be inconvenient due to the Covid-19 epidemic. The duration of the interviews is on average 28 minutes. The data were collected by the researcher between February 2020 and April

2020. It is deemed appropriate to keep the identity information of the entrepreneurs participating in the research and each participant was coded as shown in Table 6.

Table 6 Information about the interview with entrepreneurs

Code	Gender	Age	Education Background	Product / Service	Date of Interview	Interview Period
E1	M	33	Bachelor Degree / Management Information Systems, Yeditepe University	Personal Defense Apparatus	19.02.2020	20 min
E2	M	46	Bachelor Degree / Electronics and Communication Engineering, Istanbul Technical University	Sustainable Digital Marketing Services	29.02.2020	67 min
E3	F	37	Bachelor Degree / Food Engineering, Pamukkale University	Digital Consultation	29.02.2020	23 min
E4	M	40	Bachelor Degree / Computer Engineering, Istanbul Technical University	E-commerce	02.03.2020	29 min
E5	F	28	Master's Degree / E-commerce and Technology Management, Yeditepe University	E-commerce	10.03.2020	15 min
E6	M	34	Master's Degree / Financial Engineering, Kadir Has University / Information Technologies, Sabancı University	Blockchain	14.03.2020	28 min
E7	F	23	Bachelor Degree / Advertising Desing and Communication, Yeditepe University	Digital Platform	24.03.2020	
E8	F	28	PhD Student / Dentistry, Yeditepe University	Medical Technologies	14.03.2020	18 min
E9	M	31	Master's Degree / Biotechnology, Ege University	Biotechnology – Microbial Products	26.03.2020	15 min
E10	F	-	Doctorate Degree / Pharmacy, University of Minnesota	Sun Protection	28.03.2020	46 min
E11	F	30	Master's Degree / Biomedical Engineering, Erciyes University	Hospital-type Sperm Software	01.04.2020	28 min
E12	M	50	Bachelor Degree / Public Administration, Anadolu University	Heating Fabrics	10.04.2020	25 min
E13	M	26	Bachelor Degree / Advertising Design and Communication, Yeditepe University	Education Management	11.04.2020	24 min

The questionnaire was prepared in light of the factors determined as a result of the in-depth interview. Data was collected from university students and youth who graduated within ten years located in different cities of Turkey. The questionnaire was answered by 303 people.

In this study, the questionnaire consists of 2 parts. In the first part, there are 5 questions that define the demographic characteristics of the people. In the second part, there are 4 closed-ended questions and 3 statements to measure the effect of socio-cultural situation and

university education on entrepreneurship tendencies. The descriptive distribution of the information obtained by the number of 303 participants with closed-ended questions is given in this section.

Table 7 Descriptive distribution of the gender of the participants

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	128	42,2	42,2	42,2
	Female	175	57,8	57,8	100,0
	Total	303	100,0	100,0	

The percentage of 57,8 of the participants are women and the percentage of 42,2 are men.

Table 8 Descriptive distribution of the age of the participants

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25	143	47,2	47,0	47,0
	25+	160	52,8	53,0	100,0
	Total	303	99,7	100,0	
Total		303	100,0		

The ages of the people participating in the research were examined under two categories. The first category; age range of 18-25, covering people who are studying at undergraduate or newly graduated. The second category is the group over the age of 25 who graduated from university. In this study, the percentage of 47,2 of the participants at the age of 18-25. And the percentage of 52,8 of participants at the age of 25+.

Table 9 Desctiptive Statistics for Marital Status of Participants

Marital Status					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	251	82,8	82,8	82,8
	Married	52	17,2	17,2	100,0
	Total	303	100,0	100,0	

The percentage of 82,8 of the participants are single and the percentage of 17,2 are married.

Table 10 Descriptive Statistics of Entrepreneurial Family

Is there an entrepreneur in the family?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	202	66,7	66,7	66,7
	Yes	101	33,3	33,3	100,0
	Total	303	100,0	100,0	

The percentage of 66,7 of the participants have not entrepreneurs in their family and the percentage of 33,3 have an entrepreneur in their family.

Table 11 Monthly Income of the Participants

Monthly Income					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10000, +	10	3,3	3,3	3,3
	2500 - 4999	113	37,3	37,3	40,6
	2500, -	122	40,3	40,3	80,9
	5000 - 9999	58	19,1	19,1	100,0
	Total	303	100,0	100,0	

According to Table 11, participants' income in mainly 2500 and below.

Table 12 Descriptive Statistics for Education Levels of the Participants

Education					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Doctorate Student	8	2,6	2,6	2,6
	Bachelor's Degree	141	46,5	46,5	49,2
	Undergraduate Student	92	30,4	30,4	79,5
	Master's Degree	62	20,5	20,5	100,0
	Total	303	100,0	100,0	

The distribution of people participating in the study according to their educational status is given in Table 12. In the research, people who are undergraduate and graduate were included.

Table 13 Descriptive Statistics for Sucjecy of Science of the Participants

Subject of Science					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Other	59	19,5	19,5	19,5
	Educational Science	28	9,2	9,2	28,7
	Natural And Applied Sciences	46	15,2	15,2	43,9
	Health Sciences	18	5,9	5,9	49,8
	Social Sciences	152	50,2	50,2	100,0
	Total	303	100,0	100,0	

Participants received training mainly in the field of Social Sciences as shown in Table 13.

Table 14 Descriptive Statistics for Entrepreneurship education of the participants

Entrepreneurship Training					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not receive	183	60,4	60,4	60,4
	Receive	120	39,6	39,6	100,0
	Total	303	100,0	100,0	

When Table 14 is examined, it is observed that 60,4 percent of the participants have not received entrepreneurship training before. The number of 93 of the 120 participants who have received entrepreneurship training from their university.

According to the findings obtained in the in-depth interviews with entrepreneurs, having multidisciplinary teammates in an initiative is important for success. In addition, it has been observed that entrepreneurs with competencies in different fields are more advantageous. It is also advantageous to get to know people from different circles and having wide networking.

In light of these factors, statements about university education were directed to the participants by questionnaire. The descriptive statistics for these questions are analyzed by using mean tables which measured on five point scale of "Strongly disagree" to "Strongly agree" listed below. The descriptive distribution of these expressions is shown in Table 15.

Table 15 Descriptive Statistics for Statements about University Education

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
I can get the support I expect from the university regarding the entrepreneurial ideas	303	1	5	2,22	1,163
During my university education, I took part in collaborations with students from other departments. (Student clubs, social responsibility projects, activities etc.)	303	1	5	3,31	1,424
I had the chance to take elective courses from different faculties and departments during my university education.	303	1	5	2,97	1,590
Valid N (listwise)	303				

Descriptive findings support that, university students in Turkey have not enough chances to come together with different disciplines, they do not get enough courses from different faculties.

Table 16 Descriptive Statistics for Entrepreneurship Education of the Participants

Entrepreneurship Education					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	183	60,4	60,4	60,4
	Yes	120	39,6	39,6	100,0
	Total	303	100,0	100,0	

The percentage of 60,4 of the participants did not receive any entrepreneurship education and the percentage of 39,6 have received entrepreneurship education.

Table 17 Descriptive Statistics for Technological Competence of the Participants

Do you have enough technological competence to improve your product or service?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	221	72,9	72,9	72,9
	No	82	27,1	27,1	100,0
	Total	303	100,0	100,0	

According to the Table 17, the percentage of 72,9 of the participants have enough technological competence to improve their product or service.

Table 18 Descriptive Statistics for Ability to Build a Team of Participants

Do you think you can easily build a team to bring your idea to life?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	155	51,2	51,2	51,2
	No	148	48,8	48,8	100,0
	Total	303	100,0	100,0	

The percentage of 51,2 of the participants think that they can easily build a team to improve their idea.

5. Data analysis

The sample data is tested by reliability. In determining the differences between participants' entrepreneurship tendency and variable factors, their suitability to normal distribution was investigated by Kolmogorov-Smirnov. T-test is used for comparing the variables with normal distribution, and ANOVA test is used for comparison between two and above groups. In comparison, Kruskal Wallis test and Mann-Whitney U were used for the data that do not have normal distribution.

Analysis for variance is used to compare means of two or more variables. Sample means are compared in order to infer whether the means of the corresponding population distributions differ. With the help of ANOVA analysis it can be declared that different ages and different university education can affect the entrepreneurship tendency overall use ratios. In determining the differences between participants' entrepreneurship tendency

and variable factors, their suitability to normal distribution was investigated by Kolmogorov-Smirnov. T-test is used for comparing the variables with normal distribution, and ANOVA test is used for comparison between two and above groups. In comparison, Kruskal Wallis test and Mann-Whitney U were used for the data that do not have normal distribution. Kruskal-Wallis analysis was used instead of ANOVA to test this hypothesis as normality assumption was not met. Mann Whitney U analysis which is the nonparametric equivalent of the T-test.

5.1. Measurement Model

Composite Reliability is a reliability coefficient based on internal consistency and the factor obtained from CFA calculated using loads and error variances (Yang & Green, 2011). Composite Reliability values of 3 variables of the Likert scale are 0,748 which can be accepted as reliable. Composite Reliability (CR) and Average Variance Extracted (AVE) are calculated using SPSS and Microsoft Excel after factor analyzing.

The reliability analysis of expressions on Likert scale is shown in Table 19.

Table 19 Composite Reliability

	λ	λ^2	ε
I had the chance to take elective courses from different faculties and departments during my university education.	0,691	0,478	0,522
During my university education, I took part in collaborations with students from other departments. (Student clubs, social responsibility projects, activities etc.)	0,713	0,509	0,491
I can get the support I expect from the university regarding the entrepreneurial ideas	0,643	0,414	0,586
	3,435	2,02928	3,97072

Table 20 Result of the Reliability Analysis

N	3
Average Variance Extacted	0,4668
Composite Reliability	0,72388

λ (lambda) is the standardized factor loading for items. The error variance (ε) is estimated based on the value of the standardized loading (λ).

6. Discussion and conclusion

6.1. Key findings

This study examined the effective factors of entrepreneurial tendencies on individuals. The proposed research model supports the argument that socio-cultural factors effect the entrepreneurial tendency such us social environment, technological competence. Findinfs of the results are given in detail in this section.

Table 21 Results of the Mann-Whitney U Statistics

H1:

Test Statistics[a]

Mann-Whitney U	8989,000
Wilcoxon W	14140,000
Z	-1,951
Asymp. Sig. (2-tailed)	,051

It is not possible to say that there is a significant relationship between the presence of entrepreneurship tendency and the family presence of family entrepreneurs (p>0,05).
In addition the questionnaire results, the entrepreneur interviews, it was concluded that having an entrepreneur in the family is not spesific supplement. This hypothesis has been rejected.

Table 22 Results of Levene Statistics

H2:

Levene's Test for Equality of Variances		T-test for Equality of Means				
F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
3,088	,080	1,490	301	,137	,08549	,05738
		1,489	296,422	,138	,08549	,05742

Leneve statistic results prove that variance are homogeneous (p>0,05). According to t-test analysis, there is no relationship between the existing entrepreneurship tendency and age. So, the hypothesis has been rejected.

Table 23 Results of Kruskal Wallis Test

H3:

	Existing Entrepreneurship Tendency
Kruskal-Wallis H	,225
df	2
Asymp. Sig.	,894
a. Kruskal Wallis Test	

Among the income levels, the number of people who have income of 1000 and above is not included in the average since there are only 10 people.

According to Kruskal-Wallis analysis, there is no relationship between the existing entrepreneurship tendency and income level (p>0.05). So, the hypothesis has been rejected.

Table 24 Results of the Mann-Whitney U Statistics

H4 :

	Existing Entrepreneurship Tendency
Mann-Whitney U	4981,000
Wilcoxon W	6359,000
Z	-3,110
Asymp. Sig. (2-tailed)	,002

Entrepreneurship tendency of single people is higher than married people (p<0,05). So, the hypothesis has been confirmed.

Table 25 Results of the Leneve Statistics

H5 :

Levene's Test for Equality of Variances		t-test for Equality of Means				
F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
,726	,395	-,507	301	,613	-,02978	,05876
		-,506	253,702	,613	-,02978	,05882

Levene statistic results prove that variances are homogeneous (p>0, 05) and according to T-test analysis, there is no relationship between entrepreneurship tendency and entrepreneurship education (p>0.05).

Table 26 Results of ANOVA Statistics

H6:

Existing Entrepreneurship Tendency					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2,899	4	,725	2,979	,020
Within Groups	72,487	298	,243		
Total	75,386	302			

Leneve statistic results prove that variances are homogeneous (p>0,05) and according to ANOVA analysis, there is relationship between existing entrepreneurship tendency and attending multidisiplinary groups.

Table 27 Results of T-test

H7:

Levene's Test for Equality of Variances		T-test for Equality of Means				
F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
,781	,378	-,994	301	,321	-,06423	,06461
		-,990	143,762	,324	-,06423	,06487

Levene statistic results prove that variances are homogeneous (p>0, 05) and according to T-test analysis, there is no relationship between entrepreneurship tendency and entrepreneurship education.

Table 28 Result of Mann-Whitney U Test

H8 :

	Existing Entrepreneurship Tendency
Mann-Whitney U	8875,000
Wilcoxon W	20965,000
Z	-3,940
Asymp. Sig. (2-tailed)	,000

Entrepreneurship tendency of individuals who think that they can easily team up are higher than others (p<0,05). So, the hypothesis has been confirmed.

Table 29 Results of ANOVA Test

H9 :

Existing Entrepreneurship Tendency

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,155	5	,031	,122	,987
Within Groups	75,231	297	,253		
Total	75,386	302			

Levene statistic results prove that variances are homogenous (p>0, 05) and according to ANOVA analysis, there is no relationship between entrepreneurship tendency and work experience.

7. Conclusion and Recommendation

7.1. Theoritical implications

This study contributes to theoretical understanding in several ways. Drucker evaluates the entrepreneurship as a learnable feature. Moreover, a person who receives a basic entrepreneurship education providing competence in administrative terms, is more likely to engage in an entrepreneurship activity in the future (Dutta, 2011). First of all unlike previous studies that there was no relation between entrepreneurship tendency and took entrepreneurship education. This result shows that individuals who have not received entrepreneurship education may also have entrepreneurial tendency.

In a master thesis prepared by Cansız (2007), it was aimed to examine the entrepreneurship characteristics of students studying at Süleyman Demirel University, to determine the entrepreneurship tendencies and to determine the effect of demographic factors on entrepreneurship. As a result of the study, it was revealed that the students were potential entrepreneurs but could not use their potential due to lack of mentoring. When the responses of female and male students who participated in the survey were examined, it was understood that female students had an intuitive tendency towards entrepreneurship and male students focused on financial gain. In the same study, innovation characteristics of female and male students were compared, it was concluded that male students showed more innovative features than female students. Secondly, according to the research

findings, demographic factors such as; age and financial status does not effect the entrepreneurship tendency. Other demographic factor that is marital status have effect on entrepreneurship tendency. Single people's entrepreneurship tendency are higher than the married people.

Thirdly, entrepreneurship tendencies are higher on individual in multidisciplinary settings. The fact that entrepreneurship is a multi-faceted process requires different disciplines to come together. People who come together with different social disciplines have more entrepreneurship tendencies.

Aldrich and Wiedenmayer (1993) has been examined that the socio-political environment may have positive or negative effects on entrepreneurship. External effects can determine the relationship between entrepreneurial behavior and performance. The supportive environment increases motivation to establish and growth an enterprise such as reducing legislation for the establishment of enterprises, providing training and mentoring, financial resources, supporting to prototype and also the impact of entrepreneurship education in the region.

Finally, besides the theoretical information to be given to university students, training that will help them develop their skills in practical should be emphasized

7.2. Practical implications

Preparing social environments where they can develop themselves in areas such as team building and understanding the spirit of the team will give students an advantage. Entrepreneurial university applications can take place at multiple and different levels. These studies can be carried out as individual initiatives at the lower level, and large-scale R&D and planning studies for social and social issues can be carried out in a multi-disciplinary manner. In addition, strategic cooperation with the relevant institution and the state can also be considered (Yamamoto, 2020). Providing support in the development of the project by directing from the idea stage will increase the success rates. Remote incubation centers with the creation of access to potential entrepreneurs in different regions of Turkey, the number of innovative entrepreneurship can be increased. Entrepreneurs should be provided with the laboratory and workshop facilities where they can develop prototypes. Supports from the idea to the product stage will help bring more ideas to life. The chances of creating innovative products are also high in the university period, when people's creativity is high. However, not every innovation can be transformed into a commercial product, so marketing education should be emphasized more while giving entrepreneurship training to students in different departments.

As a result of the research, it has been observed that presenting environments where students can meet with different disciplines will have a positive effect on their entrepreneurial intentions. Entrepreneurship tendencies of people who have not received entrepreneurship education due to the published entrepreneurship awareness seem to be high. The information obtained in the interviews also confirms this situation. Entrepreneurs wanted to study entrepreneurship ecosystem after they intended to become entrepreneurs. As entrepreneurship is a learnable discipline, students should be informed about the entrepreneurship ecosystem with elective courses to be given in all departments.

In this way, survival rates of start-ups can be increased. The development of the demand in the market can be followed with the applications and the necessary research and application-oriented simulation studies infrastructure can be provided to determine the required issues (Yamamoto, 2020). In addition, the interviews showed that the teams were created from the environment of the entrepreneur as a multidisciplinary, so it is important to give these opportunities to the students.

7.3. Future research

Entrepreneurship tendency contains many variables. In this study, demographic and socio-cultural factors are emphasized. However, personality traits also have an impact on decision to be an entrepreneur. This variable was not included in the scope of the research despite the possibility of not answering openly to the questions asked about the personality traits of individuals, such as not feeling comfortable or feeling safe.

With a study in which personality traits are analyzed in depth, a future research can be conducted on the factors affecting entrepreneurship tendency. With a more comprehensive research, examination can be made by including personality traits.

This study focuses on individuals' university education periods. More comprehensive data can be obtained by including more university students with a more comprehensive research. The impact of social activities offered at universities on the development of entrepreneurial skills can be explored in future research.

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