

DEVELOPING ENTREPRENEURS: ENTREPRENEURIAL CHARACTERISTICS OF UNIVERSITY STUDENTS

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Abstract

Purpose- This paper aims to find out which convictions and characteristics are affecting the entrepreneurial intentions of the university from all educational fields and levels of students in Turkey. For this purpose, it seeks to analyze the entrepreneurial characteristics and demographical information of 450 university students in Turkey and cluster the sample meaningfully into different groups.

Factor analysis is conducted on 27 different attributes on which Turkish students' entrepreneurial characteristics. Six factors have emerged of this analysis, which is explaining a total of 55% of the entrepreneurial characteristics of respondents. The effects of demographical attributes on these factors are determined and finally, cluster analysis is conducted. As a result of cluster analysis three clusters are determined and named "Learning", "Waiting" and "Ready to Go" respectively.

Keywords: Entrepreneurship, Entrepreneurial Behavior, Entrepreneurial Intentions, Entrepreneurship Education

Jel Classification: I25, L26, J24, I23

GİRİŞİMCİLERİN GELİŞTİRİLMESİ: ÜNİVERSİTE ÖĞRENCİLERİNİN GİRİŞİMCİLİK ÖZELLİKLERİ

Öz

Bu çalışmada Türk üniversitelerinde seviye ve alan ayrımı gözetmeksizin eğitim gören öğrencilerin girişimcilik özelliklerini ve kısıtlarını etkileyen unsurların incelenmesi amaçlanmıştır. Bu amaçla 450 üniversite öğrencisinin demografik bilgileri ve girişimcilik özellikleri analiz edilmiş ve kümelendirilmiştir.

Türk öğrencilerin girişimcilik özelliklerinin yer aldığı 27 farklı ifade üzerinde Faktör analizi uygulanmıştır. Katılımcıların girişimci özelliklerinin toplam %55'ini açıklayan bu analizde altı faktör ortaya çıkmaktadır. Demografik özelliklerin bu faktörler üzerindeki etkileri belirlenmiş ve son olarak küme analizi yapılmıştır. Küme analizi sonucunda öğrenciler sırasıyla "Öğrenen", "Bekleyen" ve "Hazır" olmak üzere üç küme altında toplanmışlardır.

Anahtar Kelimeler: Girişimcilik, Girişimcilik Davranışı, Girişimcilik Eğitimi, Girişimcilik İsteği

Jel Sınıflaması: I25, L26, J24, I23

1. Introduction

Creating- developing entrepreneurs and inventors become one of the major goals of education institutions in the past decade.

Since the global competition drastically affecting all kinds of organizations, successful business people became the hope for prosperity and wealth on the globe. Entrepreneurship is one of the topics about which studies have been conducted for many years.

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It is commonly stated that economic development and wealth are outcomes of entrepreneurial activities in a country. From this point of view, it can be said that educating potential entrepreneurs, canalizing educated people into entrepreneurship activities and raising the quality of entrepreneurs is important to maintain and improve the prosperity in a country. Although there are many stories of school drop-outs becoming successful entrepreneurs, the increasing global competition of the business environment seems to indicate that education is an essential entrepreneurial quality. Cooper et al. (1987) reported that entrepreneurs have a significantly higher level of education than the general population.

With the rapid improvements in technology; especially on prices and processing power of portable, web connection allowing devices, opportunities on the web are also rising. Every day more and more young people are dreaming of becoming the next big internet entrepreneurs of the globe, like Mark Zuckerberg of Facebook, Bill Bezos of Amazon, Larry Page and Sergey Brin of Google or Sean Parker of Napster.

Although almost every story of successful entrepreneurs is highly related to becoming rich, studies on entrepreneurship intentions show that the monetary gains are not the only motives or intentions of entrepreneurs- entrepreneurship candidates. One of the results of this situation is the diverse types of entrepreneurial activities such as intrapreneurship, social entrepreneurship, ecopreneurship or ecological entrepreneurship, etc. These types of entrepreneurship' do not have monetary gains as their primary goals but are still entrepreneurial activities. In this context, it can be said that the monetary income is not the only motivation factor of entrepreneurs.

The purpose of this research is defining determinants of entrepreneurial intentions of Turkish university students from all educational levels and fields and clustering it into statistically meaningful profiles.

2. Entrepreneurship

The main object of all enterprises can be defined as, producing goods and services for satisfying different human needs. Production in general means the process of putting factors of production together to create a new service or good. The factors of production can be counted as natural resources, labor, capital, and information. The one who puts the factors of production is called as an entrepreneur in the basic business and economics literature (Mirze, 2002).

The word "Entrepreneurship" derives from the French word "entprendre" (Kuratko, Hodegts, 1992) and it has been introduced by Jacques des Bruslons in 1723 on the French dictionary "Dictionnaire Universel de Commerce" (Navale, 2013). The first academic, who used the word "entrepreneur" was the economist Richard Cantillon in likely 1730. Cantillon identified the willingness to take the personal financial risk of a business venture as the defining characteristic of an entrepreneur.

In the early 1800s, economists Jean-Baptiste Say popularized the academic usage of "entrepreneur." Say point out the role of the entrepreneur in creating value by moving resources out from areas with limited production capacity into more productive ones.

Mill used the term "entrepreneur" in his book "Principles of Political Economy" in 1848, to define a person who takes both the risk and the management of a business. In general, Mill made an obvious distinction between an entrepreneur and other business owners.

Mill stated that there is a difference between the firm's owners or shareholders, who are carrying the financial risks but do not actively participate in the day-to-day operations or management of the company (Cunningham, Lischeron, 1991).

Further research on the field entrepreneurship can be divided into three major categories: What are the results of the entrepreneurial activities? Most of the research conducted in this category is not focused on the entrepreneur as a person or its entrepreneurial actions. This point of view is generally taken by economists, such as Joseph Schumpeter, Israel Kirzner or Mark Casson (Stevensson, Jarillo, 1990). According to Shumpeter (2000), entrepreneurs are individuals who exploit market opportunity through technical and/or organizational innovation, so he emphasized the innovation dimension of entrepreneurship. Kirzner focused on entrepreneurship as a process of discovery. The so-called Kirznerian entrepreneur is someone who tries to discover profit opportunities, which are not yet seen by anyone else. The entrepreneur's discovery on new opportunities starts a process in which these newly discovered profit opportunities are then acted on in the marketplace until competition eliminates the possibility to make a profit (Peverelli, Song, (2012).

The second main approach on entrepreneurship studies is the 'psychological/sociological approach', founded by McClelland (1961) and Collins and Moore (1964), in the early 1960s. Their work emphasizes the entrepreneur as a person, and on the idea that individual human beings with their education, environment, past-life, goals, values, and motivations-are the focuses of studies. The reasons for a person's entrepreneurial action are the major interest of the researchers. Both the entrepreneur as an individual and the environment as it relates to the motives of entrepreneurial behavior are taken into consideration. The third approach to entrepreneurship is, how entrepreneurs act can become the center of attention. From this point of view, researchers analyze the characteristics of entrepreneurial management, how entrepreneurs can achieve their goals. (Stevensson, Jarillo, 1990).

Barton and Lischeron (1991) have identified six major schools of thought on entrepreneurship and each of these schools of thought can be according to its interests in studying personal characteristics, opportunities, management, or need for adapting an existing venture.

- Great Person School of Entrepreneurship-entrepreneur is a person born with intuition, energy, persistence, and self-esteem
- Classical School of Entrepreneurship - related to innovation, creativity, and discovery
- Management School- an entrepreneur is a risk-taker who organizes, owns, manages and assumes the risk
- Leadership School of Entrepreneurship - an entrepreneur is a person who motivates, directs and leads
- Intrapreneurship School of Entrepreneurship - an entrepreneur is a person who is a skillful manager within complex organizations
- Psychological Characteristics School of Entrepreneurship- an entrepreneur is an individual with unique values, attitudes, and needs that drive them and differentiate them from non-entrepreneurs. In other words, a person's needs, drives, attitudes, beliefs, and values are the primary determinants of behavior. Thus, the main emphasis of this school of thought is personality/psychological factors and characteristics.

There are also different types of entrepreneurial activities such as: “Social Entrepreneurship”, “Ecopreneurship”, “Women Entrepreneurship” and “Intrapreneurship”.

3. Entrepreneurial intentions and characteristics

Entrepreneurial intentions are defined as directing one’s attention and behaviors selectively to self-employment as opposed to organizational employment. Entrepreneurial intentions are linked to an understanding of entrepreneurship stages. Moreover, entrepreneurial intentions provide a basis for new forms of organizations. All factors influencing personal development starting from early childhood until late adulthood also influence entrepreneurship. The most important factors among these are family, social environment and education. Moreover, personality does also play an important role in entrepreneurship. The studies focusing on the successful entrepreneurial spirit found out the following influencing factors (Börü, 2006:13).

- Profession
- Belief
- Maturity
- Race
- Education
- Gender

Researchers have developed distinct interpretations about the formation of entrepreneurial intentions. Some established models are shown in Table.1 (Börü, 2006):

Table 1. Studies on Entrepreneurial Intentions

Researchers	Subject	Year of Study
Kim & Hunter	Entrepreneurial Intentions	1993
Summers	Entrepreneurial Intentions	1998
Cromie ve Donaghue	Entrepreneurial Intentions	1992
De Noble, Erlich	Entrepreneurial Intentions	1999
Davidsson	Entrepreneurial Intentions	2000
Tandi & Sharma	Entrepreneurial Intentions	2004
Sexton & Bowman	Taking Risks Intention	1990
Mueller & Thomas	Locus of Control and Innovativeness	2001
Erdem	Entrepreneurial Intentions	2002
Shapero	Entrepreneurial Intentions	1982
Researchers	Subject	Year of Study
Brice	Entrepreneurial Intentions	2002
Miner	Entrepreneurial Intentions	2000
Body & Vozikis	Entrepreneurial Intentions	1994
Sexton & Bowman	Entrepreneurial Intentions	1986

Resource: Börü, Deniz. Girişimcilik eğilimi – Marmara Üniversitesi İşletme Bilimi Üzerine Bir Araştırma, İstanbul, Marmara Üniversitesi Yayın No, 733, 2006. P:37.

As the approaches focusing on personal attitudes of entrepreneurs provide us with accurate and continuous results, the scientific community put more weight on factors such as intentional decision making and acting, or rational evaluation. The entrepreneurial act usually comes out aligned with an individual's desires and motivations. Therefore, entrepreneurship might be grasped as an intentionally planned behavior (Naktiyok, Timuroglu 2009).

Various personality traits, cognition, and social conditions affect an individual's choice to pursue entrepreneurial activities. In this article, we have focused on a specific set of environmental cognition and personality traits and examined the reasons given by students for their entrepreneurial attitudes and inclinations for organization departments and supplying new products and services. Entrepreneurial attitude can be described according to the following four statements (Carter et al., 2003):

- Attitude is the point of view of a person on a specific issue and environment in general. It is a person's inclination toward persistence and consistency. Attitude encompasses general knowledge and comprises cognitive, emotions, and actions.
- The attitude must have an aim. The aim of an attitude is a concrete person or thing and can also be an abstract idea or thought.
- Attitude is analogous to inclination. When people hold a positive attitude toward a certain target, they will hold the same positive attitude towards a similar target.
- The individual's culture, family and educational background are the major environmental factors that affect attitude. In general, an attitude is a collection of personal traits that can be learned.

Van Praag (1999) states that the drivers and the characteristics of an entrepreneur are the two major pillars that bring success in his enterprise. According to Kuratko (2014), entrepreneurs can be characterized as the interaction of certain skills. Our research will be based on some of these elements, which are explained below.

Attitude toward entrepreneurship is an individual's concept of entrepreneurship, assessment, and inclination towards entrepreneurial behavior. If the individual has a strong inclination to start a new business, the relationship between attitude and entrepreneurial behavior will be strong (Chen, Lai, 2010).

Change can be defined as "making things different", and it can be counted as one of the fundamental drivers of innovation and so the entrepreneurship. According to the "Big Five Model" developed by Costa and McCrae, being open for new experiences addresses a broad range of interests and fascination with novelty.

People who are creative, curious, and artistically sensitive have high scores for openness. Those at the other end of the category are conventional and find comfort in the familiar (Robbins, Judge, 2013). It can be stated that people who are more open to new experiences than others are eligible for being entrepreneurs. The traits which constitute openness trait are imagination, will to accept new ideas, versatile thinking, and curiosity. The innovative and extraordinary way of thinking of such people makes them bored with the current situation and others blame them to be selfish. (Burger, 2006). Entrepreneurs are more creative and innovative compared to other employees. (Nordvik, Brovold, 1998).

Although being creative and being innovative are used generally in the same context, there is a difference between these two concepts. Being creative refers to a mostly personal process, in which the person creates a new idea or new approach, which is harder to manage and define. On the other hand, being innovative means finding a new and structured way to a process, which mostly provides a competitive advantage, or economically advantage in general. The entrepreneur is a person who makes radical changes, creates new ideas and approaches, and applies these ideas. In other words, an entrepreneur turns impossible into possible, reduces the gap between existing and possible things.

Changing possible acts into existing acts is also the focus of entrepreneurial activities (Marangoz, 2012). People whose openness dimension is low are more traditional and prefer the usual to new experiences. However, the sustainability of the establishment which such entrepreneurs intend to establish is negatively affected by open peoples' tendency to easily get bored or opt for new pursuits. Entrepreneurs are risk-takers; this basic motivation can be explained through the "Need for Achievement" theory of McClelland. He defined this need as the desire to accomplish difficult tasks, to overcome obstacles, to excel one's self and to rival and surpass others (Kreitner, Kinicki, 1991).

High achievers differentiate themselves from the desire to do things much better. They try to find situations where they can take and carry the responsibility to solve problems (Robbins, 1989). High achievers cannot be seen as gamblers. They tend to take moderate risks. They try to increase the odds of winning through examining the situations and as a result of high-risk decisions for average businessperson often are moderate risks for the high achievers (Kuratko, 2014). Competitiveness and achievement motivation are similar concepts, but they are not alternatives for the same psychological reality. Since competitiveness concerns comparison with other people's needs for achievement is more related to performance compared with an individual's internal standards (Davidsson, 1995).

Entrepreneurs face different types of risk. These can be grouped into four major areas (Kuratko, 2014):

- **Financial Risks-** In most ventures, the entrepreneur invests a significant part of his/her savings or other resources into its business. In most cases other than his/her savings, an entrepreneur also uses credit from different institutions and signs personally on company obligations, which are exceeding the net worth of the company.
- **Career Risks-** Potential entrepreneurs frequently ask themselves the future of their career, if their enterprise fails. This career risk is a major concern of well-paid managers or potential entrepreneurs in their older ages.
- **Family and Social Risks-** Launching a new business requires great time and energy for the entrepreneurs. This situation creates a major risk for the family and the social life of an entrepreneur.
- **Mental Risk-** The mental risk may be the most dangerous ever an entrepreneur may face in terms of failure. Money can be replaced, a new house can be built, spouses, children, family members or friends usually can adapt. But some entrepreneurs who have suffered financial disasters have been unable to re-adapt themselves to the new situations. The psychological impact has proven to be severe for them.

Starting or buying a new business involves risk. Entrepreneurs are usually ready to face high risks for greater rewards. This can be varying from person to person but one of the main motives of entrepreneurs is the monetary gain- the profit (Kuratko, 2014).

Great names like Richard Branson of Virgin Group, Bill Gates of Microsoft or Mark Zuckerberg of Facebook are considered as great entrepreneurs and they are also counted as the richest people, so the idols of entrepreneurs. Most of the entrepreneurs believe that they have great ideas and are dreaming to become rich as soon as realizing their ideas (Boone, Kurtz, 2013).

Being one's own boss gives usually the freedom of how to work and when to work. Nevertheless, being an entrepreneur doesn't mean that one could work less than employees. On the contrary, most entrepreneurs must work for long hours to succeed in their business. But the feeling to have options and not being under command of others can be counted as one of the main motivators of entrepreneurs (Boone, Kurtz, 2013). Several studies hold that being independent- autonomy is very important among entrepreneurs. Using survey data from the United Kingdom, Germany, and Switzerland, Frey and Benz stated that the greater independence and autonomy of self-employed persons is one of the major reasons for their job satisfaction.

Benz and Frey, in 23 countries that include non-Western countries, find that the self-employed are significantly more satisfied with their work than employed persons. A series of studies on OECD-member countries shows that people most often tend to be entrepreneurs when they are not satisfied with their life and that the very act of creating their own business tends to make them more satisfied than the average person in their country. Falter (2002) holds that the greater job satisfaction exhibited by the self-employed in Switzerland stems rather from their job characteristics than from income. Falter notes that this may be because of the persons' over-optimism in addition to greater autonomy (Licht, Siegel, 2006).

According to the research of Çetinkaya Bozkurt et al. (2012), most of the entrepreneurs are stating that self-confidence is the most important characteristic for the success of an entrepreneur. Self-confidence refers to assuredness in your worth, abilities and power, regardless of the situation you are in. Someone who is self-confident has a strong sense of belief and certainty in himself/herself. He/she exudes calmness, composure and is self-aware. Entrepreneurs have a strong belief that they can solve the problems in uncertain and unstable work conditions. Most of the people tend to show to others, that they have very big and complex problems, but entrepreneurs don't have to tell others about the problems. Even they try to solve the problems secretly. The reason for this behavior is their high self-confidence (Soyşekerçi, 2011).

In deepest sense majority of the entrepreneurs are willing to accept risk for what they believe in and they want to put their imprint on their products, whatever it is. But this unbridled ego can turn very fast into a weapon of self-destruction (Kuratko, 2014). Therefore, it can be said that the entrepreneurs should have high scores on self-confidence but too much self-confidence and/or self-esteem is not one of the characteristics of entrepreneurs (Top, 2012).

Education serves as a system generating new knowledge and individuals, who, as passing through, will gain knowledge, skills, and behaviors to lead a life with a consciousness of global and national values and personal responsibility. Thus, education is acknowledged as the learning activity to develop one's skills according to personal needs and society's intentions and the entire body of theories and practices on how this can be achieved through (Fidan, 1986).

As entrepreneurship is not an innate capacity of human beings it can be developed in time through education.

Formal education can positively influence individuals on self-employment by presenting entrepreneurship as a career path and providing them with the necessary ideas and skills (Börü, 2006). Higher education is a global phenomenon in developed as well as developing societies. In knowledge-based economies, higher education is grasped as the key to success and gained importance with the growing need for highly technical and intellectual skills (Yelkikalan, 2006). On the other hand, the process of developing entrepreneurial skills should also be supported by extracurricular activities, not just classroom activities (Eraslan, 2011). Some education systems foster entrepreneurship. Individuals graduated from such educational programs, which value learn by doing over ad hoc memorizing have a higher inclination toward entrepreneurship (Demirel, Tikici, 2004).

As the first stage of an individual's character development and socialization, the family, relays a society's socio-cultural aspect, to the individual as a very effective element. Thus, the family becomes a defining social environment shaping an individual's behavior.

In their personal lives, individuals may have a difficult time making decisions on their problems, and feel the need to hear the opinions of others that they trust and believe in. Seen in this light, as people that influence an individual's decisions, the members of the family come first. A family's attitude towards society and its point of view is closely related to an individual's "entrepreneurial" characteristics/inclinations. Families that are over-protective lead to a negative effect on an individual's entrepreneurial development. Entrepreneurship is also closely related to a family's level of education and their socio-economic standing in society. Studies have shown that most people who own/operate their businesses, had fathers that were also business owners/ self-employed (Çerik, 2002:4).

Individuals that had educated mothers are more than twice as likely to attend school compared to individuals whose mothers were not educated. In some countries, the ratio becomes as high as five times more likely. In developing countries, it has been shown that 75% of children that didn't receive primary education had mothers that were also uneducated/illiterate (KSGM, 2008).

Based on the parenting received by individual children, it was seen that children that have grown up under strict/authoritarian mothers and fathers tended to be more introverted, were easily influenced by others, had an overly sensitive personality and had the inclination to have an inferiority complex with rebellious behaviors.

On the other hand, children of parents that exhibit democratic parenting tended to have more entrepreneurial skills, more self-confidence, were able to make their own decisions and take responsibility for their actions and overall be more independent (Çerik, 2002).

Since culture is the sum of the individuals that comprise it, the individual cannot be held separate from culture. Individuals also carry their culture into the systems that they develop. Seen within these terms, entrepreneurship is also directly affected by cultural phenomena (Hayton et al. 2002).

A culture/society that values individuals' becoming entrepreneurs will facilitate an environment that is much more accepting of enterprise, than a society that does not share the same value concerning entrepreneurship.

The level of trust and confidence in a society being high facilitates and increases entrepreneurial efforts in that society. Confidence and trust are high in society make it easier for entrepreneurs to cooperate with other individuals (Demirel, Tikici, 2004).

It is said that social culture affects individuals from an early age and with this effect, it shapes personality with cultural phenomena. Entrepreneurship, in general, is seen as having relations to cultural conditions and is an action shaped by these cultural/societal conditions (Hayton et al. 2002).

According to entrepreneurs, choices occur from the expectations of the social environment and derive from established prejudices. Society steers individuals towards certain roles or prepares them for this journey. The variety of opportunities presented by society directs individuals to acquire different jobs and occupations. Individuals socialize according to their attitudes and behaviors gained within existing conditions of society and role sets that are approved by the society that they live in. The values and roles of the society they live in presents binding results for individuals (Aytaç, 2006).

Women in Turkish society constitute an important aspect for all individuals within this society. However different cultures have varying views towards women, their rights, and responsibilities attributed to women. Even within the same society, values and attitudes may change over time with factors such as shifts in cultural norms and changes in religion (Yaşar, 2007). Differences in the values of judgment also affect the relations between entrepreneurship and gender, either positively or negatively.

Turkey, with its distinct geographical location, has two very different cultural environments. While big metropolises like Istanbul, Izmir, and Ankara alongside with Aegean and Mediterranean coastal regions tend to be more progressive and inclined towards western culture; in the eastern provinces, small towns and regions surrounding the outer parts of Anatolian cities a more traditional, conservative society/culture can be observed. This dual structure of Turkish society brings various opportunities to female entrepreneurs, as well as various restrictions. It is known that even in more progressive regions and in more advanced sectors of the economy, women who attempt to establish small businesses may face several cultural/societal obstacles.

According to the 2018 data from “Turkish Higher Education Institution” (YÖK), there are 206 universities in Turkey, 129 of them are state universities and 72 of them are foundation universities and 5 Foundation Vocational Schools. There is a total number of 7.010.000 graduate and vocational school students in Turkey. (<https://istatistik.yok.gov.tr/> online)

The number of higher education institutions has shown a big increase since 2006. The total number of state universities in 2006 was 68 and foundation universities 25, a total number of 93 universities. Related to the increase in university numbers, also student numbers are increased, in 2006 the number of total university students was 2,419,214 (Günay, Günay, 2011).

In the same period, the unemployment number has also increased from 2.4 million people to 3.2 million people. This drastically changes shows us that creating entrepreneurs is also a very important factor for Turkey. It is also stated that most of the employed people in Turkey have to work in minimum wage jobs. For providing general wealth and prosperity in Turkey, the educated workforce should be encouraged for entrepreneurial activities, potential entrepreneurs should be supported and infrastructure for entrepreneurs should be created.

4. Entrepreneurship education

As mentioned, one of the most important aspects of entrepreneurship in education. Education can be defined as the act or process of imparting or acquiring general knowledge, developing the powers of reasoning and judgment, and generally of preparing oneself or others intellectually for mature life. According to Bozkurt (2011), individuals can raise their knowledge and skills on entrepreneurship, and they can also gain awareness on subjects, which they had no information, through education.

The first education programs on entrepreneurship were started in Japan, in the late 30s. In the U.S.A., entrepreneurship was accepted as a discipline in the 1970s and 1980s many entrepreneurial education programs were created at American universities. At the beginning of the 2000s, there were more than 500 entrepreneurship programs in the U.S.A. Today, be it in the whole world numerous higher education institutions offer their students a possibility to study entrepreneurship or subjects highly related to entrepreneurial activities (Bell et al. 2004).

Since the establishment of the first education program on education, the effect of entrepreneurship education has received scientific attention. Two main outcomes of entrepreneurship education have been mentioned by researchers. First, students who have attended such programs are more showing inclination to become entrepreneurs and tending to establish an enterprise. Second, they have a stronger belief that they can be more successful as an entrepreneur (Giacomin et al. 2011).

Drucker (1985) mentioned the risks of entrepreneurial activities, so they should be managed in a system to achieve competencies. Hence, he labeled entrepreneurship in terms of management methodologies and defined entrepreneurship as a discipline. According to him, entrepreneurship can be learned as a discipline or methodology. However other researches show that the entrepreneurs lack the scientific skills and knowledge and they tend to rely on their feelings and other qualities. Moreover, the lack of managerial knowledge shows its importance at the early times of the enterprise.

At this level, the education of entrepreneurs on business, management, and administrative topics becomes highly important. However, as Hostager and Decker mentioned, general business management education of entrepreneurship programs don't have a major influence on entrepreneurial inclination (Askun and Yildirim, 2011).

According to Nelson (1977), entrepreneurial education should start during the students in primary and secondary school years and should include activities in the home and the community. The motivation for becoming an entrepreneur involves a developmental process that must be integrated into a student's formal and informal education. Female and male students must be encouraged to develop their entrepreneurial skills and knowledge. As the report of 2012, almost all European countries try to teach entrepreneurship, mostly under social sciences subject, in the primary schools. In secondary schools, entrepreneurship is a separated subject in many countries (Bourgeois, 2011). This report shows that entrepreneurship started to play a still not significant but a promising role not only in higher education but in primary and secondary education.

Entrepreneurship education is primarily based on business education in universities. It contains subjects like financing, marketing, and management of small and medium-sized companies, accounting principles and actual tax practices.

Still, entrepreneurship education is taught in Turkey on master and Ph.D. levels. There are very few universities and vocational schools in Turkey which have entrepreneurship programs on the bachelor level, but the number is rising since 2010. Today there are only 3 bachelor programs for entrepreneurship education in Turkey (Bozkurt, 2011; www.osym.gov.tr).

Entrepreneurship education in Turkey is not only limited to universities or vocational schools. KOSGEB (Küçük ve Orta Ölçekli İşletmeleri Geliştirme ve Destekleme İdaresi Başkanlığı-Small and Medium Enterprises Development Organization) is an institution which is active for not only for supporting small and medium enterprises, but also support entrepreneurs by giving them low-interest loans, managerial support, and entrepreneurship education. Applied entrepreneurship training of KOSGEB is a quite helpful and featured program in Turkey, this course includes training and workshop studies of a minimum of 60 hours for entrepreneurship abilities testing, business idea exercises, and business plan preparation. Entrepreneurship Training can be organized by KOSGEB itself or other foundations or institutes like universities, professional organizations, and municipalities.

Training is arranged for general and specific (young, women, and disadvantaged groups) target groups and education is free for all participants (www.kosgeb.gov.tr).

5. Methodology

To reveal the entrepreneurial characteristics of university students a scale is adapted from the research of Davidson (1995). Entrepreneurial characteristics of students are measured on a seven-point Likert scale. The Scale contains 27 items and it is going to be answered with “(1) strongly disagree; (4) undecided; (7) strongly agree.

The students are reached via digital social media, via “Facebook” and “Twitter” groups. 456 students are reached during two weeks of the first period of the research. From the 456 surveys total “6” surveys are eliminated for different reasons. Except for the “entrepreneurial characteristics” questions, demographics questions of age and gender; educational field, level, and type of educational institutions are asked to the participants. It is also asked if the students have ever taken business, entrepreneurship-related classes. When it comes to the work experience, it is asked if the students have any job experience or if they have ever made any entrepreneurial activities.

It is also asked if the students are the first-borns of their parents and if the parents owning their own business to research the family background of students. The collected data is analyzed with IBM Spss 20.

The survey was introduced to the university students with information on the general purpose of the study and the e-mail address of the author. No personal identification question was asked to secure the confidentiality of the students and make them feel more comfortable in answering the questions.

6. Findings

The Cronbach Alpha Values are obtained using reliability analysis from the survey data. The Value of Cronbach Alpha for the “entrepreneurial characteristics” scale is determined by 0.751 so the scale is reliable (Altunışık et al., 2007).

The average age of the surveys is “23.2”. The demographic findings from the 450 valid surveys are shown below:

Table 2. Gender of Participants

Gender	Frequency (n)	Percent (%)	Cumulative Percent (%)
Female	236	52,4	52,4
Male	214	47,6	100,0
Total	450	100,0	

The research shows us that 52.4% of the students which participated the research are female and 47.6% are male.

Table 3. Educational Level of Participants

Educational Level	Frequency	Percent (%)	Cumulative Percent (%)
Vocational Training School	36	8	6,7
Undergraduate	331	73,6	81,6
Masters	57	12,7	94,2
Doctorate	26	5,8	100,0
Total	313	100,0	

Most of the students which participated the research are undergraduate students with 73.6%. Master students have a percentage of 12.7% the total participants, vocational school students have percentage of 8% and doctorate students 5.8%.

Table 4. Educational Fields of Participants

Field of Education	Frequency (n)	Percent (%)	Cumulative Percent (%)
Economic and Administrative Sciences	219	48,7	48,7
Engineering	56	12,4	67,3
Medical Sciences	37	8,2	83,1
Architecture	34	7,6	74,9
Social Sciences	28	6,2	99,8
Fine Arts	27	6	93,6
Law	20	4,4	87,6
Educational Sciences	17	3,8	52,4
Nature Sciences	11	2,4	54,9
Sports	1	0,2	100
Total	450	100,0	

Most of the participants continue their educations on the field economics and administrative sciences. Engineering, architecture and medical sciences students are the other most participated educational fields.

Table 5. Type of Educational Institution

Type of Educational Institution	Frequency (n)	Percent (%)	Cumulative Percent (%)
State	360	80	80
Foundation	90	20	100,0
Total	450	100,0	

Most of the students (80 %) are on state-funded institutions and (20%) of the students are on the foundation universities.

More than half of the students (57.6%) have taken entrepreneurship, management, business or marketing classes. 422 students did not start their own business and 402 students never managed the day to day operations of an enterprise. Most of the students either don't have any work experience (28.4%) or very short work experience (33.8%).

Approximately half of the students are the first kid of their parents and 62.7% of the parents of the students don't own their own business.

Firstly, the suitability of the data for factor analysis is investigated. The Kaiser- Meyer- Olkin (KMO) measure of sampling adequacy is found to be 0.778, higher than the minimum acceptable value of 0.5, showing that the sample size is large enough for conducting factor analysis (Durmuş et al.2011). At the factor analysis, nine factors are specified for the "Entrepreneurial characteristics"; since three factors are very low on reliability, they are eliminated.

Of the total six valid factors, first factor explains 12.447%, second factor 9.217%, third factor 7.430%, fourth factor 6,930%, fifth factor 6,901%, and the sixth factor 6.668 of entrepreneurial characteristics. The six factors explain together 55.125% entrepreneurial characteristics of the whole respondents. After examining the questions, it is detected that the first factor is "competitiveness", the second factor is "financial rewards", the third factor is "ownership desire", the fourth factor is "need for achievement", the fifth factor is "openness" and the sixth factor is "knowledge". The Cronbach Alpha Values, Eigenvalues, and the Total Variance Explained of each factor are given in figure 5. below.

Table 6. Reliability Statistics

Factors	N of Items	Cronbach Alpha Values	Eigenvalues	Total Variance Explained
Competitiveness	5	0.788	5,072	12,447
Financial Rewards	4	0.750	2,914	9,217
Ownership Desire	3	0.721	2,039	7,430
Need for Achieve	3	0.807	1,803	6,930
Openness	4	0.631	1,487	6,901
Knowledge	2	0.880	1,436	6,668

The first factor explains, that the students are seeing themselves as competitors and acting well in highly competitive situations. The second factor explains that the students with a higher score under this factor have a higher opinion on financial returns-monetary profits of entrepreneurial activities. The third factor indicates the desire for owning an enterprise, because of various reasons. The fourth factor is called the “need to achieve”. The theory of McClelland explains that the “need to achieve” is one of the most important motivation factors, so it is for entrepreneurial inclination. Openness, being open for new experiences refers to a typical entrepreneurial characteristic, in which people with high scores under this factor are always ready and willing to try new things. The sixth factor indicates that the respondents are having the knowledge to start and maintaining entrepreneurial activities. Table 3 shows us the factor weights, means and standard deviation of the factors.

Table 7. Entrepreneurial Characteristics Descriptive Statistics and Factor Results

Factors	Factor Weight	Factor Mean	Mean	Std.. Deviation
Competitiveness		5,085		
I enjoy working in situations involving competition with others	,625		4,5933	1,9969
It is important for me to perform better than others on a task	,802		5,7533	1,6615
I feel that winning is important in both work and game	,726		5,9156	1,4612
It annoys me when other people perform better than I do	,526		3,9311	2,0149
I try harder when I'm in competition with others	,800		5,2356	1,8381
Financial Returns		2,925		
I firmly believe money can solve all my problems	,791		3,3511	2,00141
I feel that money is the only thing I can really count on	,848		2,3711	1,85380
Financial Returns		2,925		
I would do practically anything legal for money if it were enough	,778		2,5178	1,90320
I am proud of my financial victories, pay, riches, investments, etc.--and let my friends know about them	,533		3,4600	2,07959
Ownership Desire		4,982		
I would be very happy running my own firm	,606		6,0289	1,62293
To run my own firm would probably be the best way for me to support myself where I currently live	,817		4,5067	1,98237
To run my own firm would probably be the best way for me to improve my financial position	,829		4,4133	1,95217
Need For Achieve		5,417		
To face new challenges and to manage to cope with them is extremely important to me	,604		5,1733	1,71751
I always try to succeed and accomplish something more than the average	,707		5,5956	1,56122
I'm probably a bit pushing and try to improve all the time	,655		5,4822	1,59367
Openness		5,295		
In order to really feel satisfied with life I need some dramatic change now and then	,556		5,2311	1,89594
Dramatic changes in one's life situation are for the most part an enrichment in the long run	,458		4,8600	1,67796
I want things to stay the way I'm used to	,556		5,5444	1,63999
I'd rather live in the same place all life	,766		5,5467	1,81280

Knowledge		3,372		
If I came up with a good business concept I know precisely how to get the funds needed to get started	,712		3,4289	1,97660
If I came up with a good business concept I know precisely where to turn for the counselling and aid I might need to get started	,741		3,3156	1,92926

When examining the relationship between the factors and demographical questions with regression analysis, following results can be made:

- The parental ownership of an enterprise and level of education have a significant effect on the factor “competitiveness”
- The type of the higher education institution (state or foundation) has a significant effect on the factor “financial returns”
- The parental ownership of an enterprise, gender, field of education and type of higher education institution have a significant effect on the factor “ownership desire”
- There are no effects of any demographical attributions on the factor “need to achieve”
- Being participated in courses like marketing, introduction to business or entrepreneurship and already being involved in entrepreneurial activities have a significant effect on the factor “openness”
- Being participated in courses like marketing, introduction to business or entrepreneurship or the parental ownership of an enterprise have a significant effect on the factor “knowledge”.

7. Cluster analysis

Students are divided into three clusters according their entrepreneurial characteristics. The clusters containing 191, 61 and 168 students respectively. After examining the clusters, it is detected that the first cluster should be called “Learning”, second cluster “Waiting” and the third cluster “Ready to Go”. Final cluster centers are giving in the Figure 6 below.

Table 8. Final Cluster Centers

	Clusters		
	1- Learning	2- Waiting	3- Ready to Go
Competitiveness	5,44	3,45	5,57
Financial Rewards	2,87	2,73	3,10
Ownership Desire	5,28	3,55	5,42
Need for Achieve	5,75	3,82	5,90
Openness	5,44	4,32	5,66
Knowledge	1,96	2,90	5,23

The F values in the ANOVA test computed to identify the significance level of between-cluster differences for these six criteria shows that all factors have significant differentiating value, shown as in Figure 7.

Table 9. Differentiating Power of Each Factor in Cluster Analysis

Factors		F	Sig
F1	Competitiveness	141,491	,000
F2	Financial Rewards	2,150	,000
F3	Ownership Desire	68,953	,000
F4	Need for Achieve	116,910	,000
F5	Openness	45,623	,000
F6	Knowledge	400,117	,000

As seen in Figure 6, the most differentiating factor between cluster 1 “Learning” and cluster 3 “Ready to Go” is the knowledge to find financial and non-financial resources. All the other factors are very similar. The second cluster “Waiting” is the smallest cluster (61 students) and they have low scores on each factor. All the clusters have similar demographical characteristics and demographical attributes does not have any significant and direct effect on cluster composition.

8. Conclusion

Entrepreneurship, motives of entrepreneurs, driving factors to entrepreneurship and entrepreneurial behavior become a major topic in academia, governments, business and NGOs since it is very important for the wealth and prosperity of a country and world in general. Understanding entrepreneurial behavior can provide important information for making future projections and so regulations. Especially rapid improving technologies, online entrepreneurship opportunities, a globalized world made entrepreneurship of young and educated people more important than ever. In this context, it is been tried to create a profile of Turkish university students on entrepreneurial characteristics and entrepreneurship intentions.

A total number of 456 students are reached via Facebook and Twitter groups in two weeks. The title of the web link was “Entrepreneurial Characteristics of University students in Turkey”, so most of the respondents were interested students either academically or business-focused into entrepreneurship. This was the main reason for high scores on every aspect of entrepreneurial characteristics determination. Six surveys were eliminated because of wrong data or being a non-university student.

The first determined cluster is labeled “Learning” since this cluster with several 191 students, is lacking the entrepreneurial knowledge.

Entrepreneurial knowledge was measured with two items “If I came up with a good business concept, I know precisely how to get the funds needed to get started” and “If I came up with a good business concept I know precisely where to turn for the counseling and aid I might need to”.

Also, the regression analysis suggests that there is a significant effect of being participated in courses like marketing, introduction to business or entrepreneurship and the parental ownership of an enterprise on entrepreneurial knowledge.

Because it is been debated if we can train, create entrepreneurs, it can be said that entrepreneurship education or education focused on practicing education is very important for entrepreneurship in general. Exclusively having entrepreneurship intention is not enough in most cases. Most of the people, who want to involve in entrepreneurship activities are stopping since they don't have enough information and support on the field. So, higher education institutions should have more courses on applied entrepreneurship or connections to organizations like KOSGEB (Small and Medium Enterprises Development Organization) or Endeavour.

The second cluster is labeled “Waiting” since the respondents of this cluster showing relatively low scores on every aspect of entrepreneurial characteristics. Being relative can be related to lacking other factors. The interesting thing is that the respondents of cluster 2 have more information than the ones in cluster 1 on entrepreneurship knowledge, but they have obvious lower scores on the need to achieve, ownership desire and competitiveness. Since the entrepreneurship theory suggests that entrepreneurship is not only about monetary gains, this group is lacking mostly on “Entrepreneurial Soul”. When we examine the demographical factors affecting this cluster differentiation, we can observe that the “Entrepreneurial Soul” factors; competitiveness and ownership desire are related also with factors like the parental ownership of an enterprise, level, and field of education and the type of educational institution.

It can be said that especially in Turkey these factors are heavily influenced by the families. So, the effects of the family and the culture are very important and meaningful in entrepreneurship.

One of the other conclusions that can be made is that the survey is distributed online, under the title “Entrepreneurial Characteristics of University students in Turkey”; for this reason, it can be said that most of the respondents were interested in entrepreneurship. So, the second cluster remained relatively small (61 students) compared with the other two clusters. Also, this cluster contains relatively more students who have come from different fields of study intensively.

The third Cluster with 168 students is labeled as “Ready to Go” because respondents of these clusters have high scores on every aspect of entrepreneurial characteristics. The factor financial returns are in all three clusters very similar, this shows us that monetary gains are not as effective as foreseen. The third cluster diverges from the other two clusters mostly on entrepreneurial knowledge, which can be seen as the most valuable aspect of entrepreneurship that can be seen as entrepreneurial knowledge.

It can be said that entrepreneurs are, most people; who like work in competitive circumstances, are open to new experiences, have a desire to achieve their goals, wish to own and manage their organizations and most important outcome of the study is that the entrepreneurial education from the school or the family affects entrepreneurial behavior.

We can argue that different types of entrepreneurship such as intrapreneurship social entrepreneurship and green entrepreneurship should be taught in higher education institutions because this type of entrepreneurial activities are mostly financially and non-financially by many organizations and people who are lacking entrepreneurial knowledge but with greater intentions towards entrepreneurship could be supported more easily.

Due to the time and financial limitations surveys are distributed and collected via the internet in a relatively short period, a broader sampling would affect the analysis in terms of precision. To conduct significant research on the topic, methods like face to face interviews, focus group or structured interviews could have a greater contribution.

Further researches on this topic can be conducted on the effects of family and the culture on entrepreneurial characteristics, the relationship between school success and entrepreneurial intentions or entrepreneurial success. On the other hand, it could be also useful to research entrepreneurial education and the effects of entrepreneurial education on entrepreneurship success and intentions.

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