

## THE INFLUENCE OF ENTREPRENEURIAL PERSONALITY ON ENTREPRENEURIAL INTENTION

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### Abstract

**Purpose** –Understanding entrepreneurship and the personality traits of entrepreneurs has become a critical issue because of the economic problems that countries face today. Personality traits have a great role in entrepreneurial intentions, as it can be seen in the related literature. University students are crucial as they will be the ones to shape a country's future, and it is important to understand the personality traits that drive the entrepreneurial intention. The attitudes toward entrepreneurship are suitable for discussion in terms of personality traits, and this paper intends to shed light on which traits of personality have effects on entrepreneurial intentions.

**Design/methodology/approach** –The convenience sampling method was used in the research. The data were collected by a structured questionnaire which was applied to 245 university students in Bursa. 26 of them were invalid so 219 questionnaires were available for analysis. Structural equation modelling was used to test the influence of entrepreneurial personality traits (innovativeness, need for achievement, alertness, the locus of control) on the entrepreneurial intention of university students.

**Findings** –Modelling results indicate that entrepreneurial personality has an influence on university students' entrepreneurial intention. The entrepreneurial intention is considered to be the most effective factor in countries' economic development. Research findings show that innovativeness, need for achievement and alertness have statistically significant influences on entrepreneurial intention, while locus of control has no effect on entrepreneurial intention.

**Research limitations/implications**– This study has two main limitations. First of all, the sample consists of university students, which may limit the applicability of the results to other sample groups such as graduates, master or PhD candidates. Secondly, the research was conducted in Bursa. The research can be widened by applying it to university students in other cities. The research results provide implications for decision makers who work for higher education establishments at macro and micro levels, in terms of efficient allocation of resources and decision making.

**Originality/value**–This paper provides empirical insights about which personality characteristics affect entrepreneurial intentions. According to the literature review, this research is the first study which has examined the influence of entrepreneurial personality on entrepreneurial intentions of students in a highly industrialized province, Bursa.

**Keywords** Entrepreneurship, Entrepreneurial personality, Entrepreneurial intention, Turkey, University students

**Jel Classification:** L1, L26

## GİRİŞİMCİLİK KİŞİLİĞİNİN GİRİŞİMCİLİK NİYETİ ÜZERİNDEKİ ETKİSİ

### Özet

**Amaç:** Girişimcilik ve girişimcilerin sahip olduğu kişilik özelliklerini anlamak, günümüzde ülkelerin karşılaştığı ekonomik problemler düşünüldüğünde oldukça önemli hale gelmiştir. İlgili yazında görüleceği üzere kişilik özelliklerinin girişimcilik niyetleri üzerinde büyük bir etkisi vardır. Üniversite öğrencilerinin toplumun geleceğini şekillendiren bireyleri olacakları düşünüldüğünde, girişimcilik niyetlerini etkileyen kişilik özelliklerinin belirlenmesi büyük önem arz etmektedir. Girişimciliğe yönelik tutumların kişilik özellikleriyle tartışılmaya müsait olması nedeniyle bu çalışma hangi kişilik özelliklerinin girişimcilik niyetleri üzerinde etkili olduğunu aydınlatmaya çalışmaktadır.

**Tasarım/metodoloji/yöntem:** Bu çalışmada kolayda örnekleme yöntemi seçilmiştir. Veriler yapılandırılmış anketler aracılığıyla Bursa şehrinde öğrenim hayatını sürdüren 245 üniversite öğrencisinden toplanmış, 26 anketin geçersiz sayılmasıyla toplan 219 anket analize uygun bulunmuştur. Girişimcilik kişiliği özelliklerinin (yenilikçilik, başarı odaklılık ve girişimsel uyanıklık) üniversite öğrencilerinin girişimcilik niyetleri üzerindeki etkisini ölçmek üzere yapısal eşitlik modelleme kullanılmıştır.

**Bulgular:** Modelleme sonuçları girişimcilik kişilik özelliklerinin üniversite öğrencilerinin girişimcilik niyetleri üzerinde etkisi olduğunu göstermektedir. Girişimcilik niyeti ülkelerin ekonomik olarak gelişmesinde en etkili faktör olarak görülmektedir. Araştırma bulguları belirli kişilik özelliklerinin (yenilikçilik, başarı odaklılık ve girişimsel uyanıklık) girişimcilik niyetini önemli ölçüde etkilediğini göstermekle birlikte, kontrol odağının girişimcilik üzerinde bir etkisi bulunamamıştır.

**Araştırma kısıtları/çıkarımları:** Araştırmanın kısıtlarından ilki örnekleminin yalnızca üniversite öğrencilerinden oluşmasıdır. Dolayısıyla, lisans mezunları, yüksek lisans veya doktora öğrencileri gibi diğer örneklem grupları için sonuçlar genelleştirilemez. İkincisi ise araştırmanın Bursa ilinde yapılmasıdır. Araştırma sonuçları makro ve mikro seviyelerdeki yükseköğretim kurumlarındaki yöneticiler için kaynak dağıtım ve karar verme açısından faydalı çıkarımlar içermektedir.

**Özgünlük/değer:** Bu çalışma hangi kişilik özelliklerinin girişimcilik niyetini etkilediğini gösteren bulgular içermektedir. Çalışma; yapılan literatür taramasına göre, sanayi şehri olan Bursa'da öğrencilerin girişimcilik kişilik özelliklerinin girişimcilik niyetine etkilerini inceleyen ilk çalışmadır.

**Anahtar Kelimeler:** Girişimcilik, Girişimcilik kişiliği, Girişimcilik niyeti, Türkiye, Üniversite öğrencileri

**Jel Sınıflandırılması:** L1, L26

## **Introduction and research rationale**

It is not new for researchers and practitioners to have an interest in entrepreneurship. This interest is driven by various elements. In the first place, entrepreneurial action is seen as a way for reviving economies which are not in great condition and for providing new fields of work for nations whose economies are in good condition. In addition, it is acknowledged as a possible impetus for the development of technology and marketing innovation. It is viewed like a locomotive of the economic process, creating new jobs and social adjustments, and it has a crucial role in developing countries' economies. Therefore, the growth of small businesses and new business arrangements is broadly empowered by national monetary approaches to enhance financial development and creation of wealth (Gürol and Atsan, 2006). It is notable that entrepreneurship is a pivotal factor in the worldwide economy. It is viewed as a noteworthy research topic for many studies. Considering the monetary issues that nations have in this day and age, the understanding of entrepreneurship and the characteristics of entrepreneurs have turned out to be critical. Entrepreneurs have the mission of creating wealth and growth of business (Carraher et al., 2016). In the global economy, most of the new economic institutions are generally small and medium-sized enterprises. The generation in the 21st century have had the most tendencies for entrepreneurial behavior since the Industrial Revolution (Staniewski et al., 2016).

Entrepreneurship represents planned and hence intentional behavior. Entrepreneurial intentions rely upon individual states of mind for starting brand new businesses. These states of mind thus show personal convictions and discernments molded by a person's identity, childhood, level of education, qualities and past experiences (Mueller, 2004). The business environment of our era is probably the most unique that any business has confronted. For all intents and purposes, businesses try to minimize their costs while they try to maximize their profits at the same time and also look for opportunities for new ventures (O'Regan and Ghobadian, 2005).

Over the previous decade business has been an 'interesting issue'; the capacity to 'get wealthy quick' has triggered the inspiration of people and at the business level the term 'fat cats' has been ascribed to high level managers. Besides, governments exercised by national competitiveness, efficiency and the condition of the national economy have seen enterprise and development as a way to develop local resources, increase the abundance of their subjects and improve execution which may be interpreted as the capacity to employ political impact in the international area. In any case, business is not to be restricted to the private sector; actually, it is considered that a range of public sector services could turn out to be more entrepreneurial and in this manner more productive and compelling (Chell, 2008).

During the previous two decades, business enterprise has turned into an extremely dynamic field of research in different sociology disciplines and a prominent concern of economic policy. Adjustment of financial frameworks to evolving conditions, advancement of items and administrations, and creation of employment and monetary development are thought to be especially reliant on the preparation and readiness of individuals to begin an autonomous exclusive business and on the organizers' abilities and endeavors to run it effectively (Brandstatter, 2011).

People who are considered to be successful entrepreneurs realize and use opportunities to make critical and fast decisions in risky environments and they are hard workers, goal oriented and keen to take risks more than others (Viinikainen et al., 2017). Understanding entrepreneurship and how to create new businesses has a lot to do with the personality traits of entrepreneurs. Some studies have paid attention to personal values, locus of control, tolerance for ambiguity and willingness to take risks while other studies have tried to shed light on behaviors, strategic planning, leadership, assumption of risks, novelty, acknowledgment of opportunities, creation of organizations, teamwork and value creation, as they were thought to be very crucial for identifying entrepreneurs (Becherer and Maurer, 1999).

People may act differently in the same situations. Traits of personality can be defined as a set of attributes which guide the way people think, act and feel (Junior, 2016). The research on entrepreneurship agrees that focusing on the personality traits helps people to understand entrepreneurs better (Obschonka et al., 2017b). Personality traits are versatile and like all of the others, entrepreneurs' also vary (Miller, 2016). Understanding the personality traits that play a role in being a successful entrepreneur would be useful for scholars of entrepreneurship (Klotz and Neubaum, 2016).

Personality traits might be thought of as portrayals of a man's attitudes, differing crosswise over conditions and occasions, incompletely randomly experienced, and half-intentionally picked or incited by the individual. "Correlating personality measures with entrepreneurial behaviour (foundation decision) and behaviour results (success of the enterprise) should be straightforward" (Brandstatter, 2011). As the literature shows, people's characteristics have an important part to play when it comes to entrepreneurial intentions. Entrepreneurial personality has pertinence from scholastic and viable points of view. Various researchers have found that entrepreneurial personality affects entrepreneurial intention (Brice, 2004; de Pillis and Reardon, 2007; Liñán et al., 2011; Wang et al., 2011; Moriano et al., 2012; Çolakoğlu and Gözükara, 2016).

Higher education institutes can help society to recognize and support entrepreneurs. With proper high education, the failure rate of unsuccessful ventures may decrease, and it may raise the awareness and interest of students in entrepreneurial careers (Hull et al., 1980). The purpose of the current research is to investigate the impact of the dimensions of entrepreneurial personality on the entrepreneurial intentions of college students studying at the Department of Business Administration in Bursa, Turkey. The outcomes of the analysis provide suggestions for managers in education establishments at macro and micro levels. Consequently, this study will enable readers to comprehend what makes individuals into prospering entrepreneurs.

## **1. Entrepreneurial Personality Traits**

Entrepreneurs can be defined as people who are key individuals within a society and who can realize opportunities and obtain the sources necessary for fulfilling new and existing needs. An entrepreneur sets up and deals with a business with the end goal of growth and profit and is characterized by innovative behavior (Hansemark, 1998; Hull et al., 1980). Entrepreneurs should continuously work for their purposes, need to persistently improve outcomes, need to assume liability for the consequences of what they do, and need to handle difficult problems (Utsch and Rauch, 2000).

According to most academicians and practitioners, the success of an entrepreneurship mostly depends on the entrepreneur than on the other possible factors (Lee and Tsang, 2001). A number of empirical studies were conducted starting in the early 1980s for relating entrepreneurial intentions with mental attributes, entrepreneurial actions and achievement (Mueller, 2004).

Entrepreneurial action is viewed as a planned act, alluding to an intention, which is frequently impacted by attitudes. The intention is related to insight including convictions, discernments, and activities. The entrepreneurial intention is firmly related with attitudes. In spite of the potential changes in attitudes in time, future practices of people can, in any case, be anticipated or clarified by their attitudes. When talking about the context of entrepreneurship, the entrepreneurial intention is a noteworthy structure that specifies the way toward making ventures. This kind of process is essentially related with personality traits (Çolakoğlu and Gözükara, 2016).

Entrepreneurship is seen as a personality trait instead of a situational condition or social function. This is not to imply that the effect of situational factors is not important. However, under similar situational conditions a few people will act entrepreneurially while other people will not (Lachman, 1980). According to the literature, there are four main dimensions of entrepreneurial personality, which are innovativeness, need for achievement, alertness and locus of control.

### **1.1. Innovativeness**

Innovativeness is identified with seeing and following up on business opportunities in novel and extraordinary ways. Being one of the recurring subjects in characterizing entrepreneurship, it can be said that people with entrepreneurial abilities are altogether more open to innovations than people who are not entrepreneurs (Koh, 1996). Innovativeness assumes that people are interested in and want to search for new ways of doing things in unusual ways. The innovativeness feature helps entrepreneurs to support innovation in their companies (Çetin and Varoğlu, 2009) and has become a critical factor used to symbolize entrepreneurship (Lumpkin and Dess, 1996).

### **1.2. Need for Achievement**

Need for achievement is a solid mental impulse behind human activity that has been for some time proposed as a driver affecting undertaker demeanor. People who enjoy achievements and want to be effective are also prone to act entrepreneurially (Koh, 1996). The need for achievement is the impulse which strengthens the

person to strive for achievement and flawlessness. People who have a solid need to accomplish are among the individuals who need to take care of issues themselves, set objectives and take a stab at these objectives through their own particular endeavors, show better outcomes in difficult situations, and who are also open to novelty in the feeling of searching for daring approaches to enhance their performances (Gürol and Atsan, 2006). Individuals in need of high achievement show a higher performance in difficult missions and search for taking more responsibility (Utsch and Rauch, 2000).

### **1.3. Alertness**

The entrepreneurial alertness concept has become a crucial factor in the entrepreneurship concept over the years (Obschonka et al., 2017a). The entrepreneurial intention may be characterized as a person's skill to embrace the entrepreneurial actions, as it turned out to be independently employed. The goal of understanding entrepreneurship requires researchers to predict and explain the behavior of entrepreneurs. Before another new business opportunity arises, the individual may react to his/her circumstances around her/him by changing and conveying a thought to an applicable chance. Alertness has been characterized as a person's capacity to recognize opportunities disregarded by others. The capacity of alertness empowers an individual to render the data in different areas of information that are connected to the development of daring opportunities (Lim et al., 2015).

### **1.4. Locus of Control**

Locus of control is a characteristic which has a relation with the general expectancy of individual as to whether they will have the capacity to handle events that occur. People differ regarding the responsibilities they have and acknowledge how they behave and their outcomes. People also differ by their generalized expectancies for internal and external control of reinforcement (Rotter, 1966). People who have an external locus of control believe conditions they have no power over like good/bad fortune, destiny and other individuals influence their performance over a range of activities. On the contrary, individuals who have internal locus of control think they have power over their own lives. The people who are believed to be entrepreneurs have an internal locus of control (Gürol and Atsan, 2006).

## **2. Literature Review**

There are researches that have tried to find out the influence of personality traits on the entrepreneurial intention from various perspectives. Lachman (1980) suggested an approach toward the measurement of entrepreneurial potentials. The approach in the study was based on the assumption that personality traits affect entrepreneurial behavior. He suggested that if the personality traits that affect entrepreneurial behavior can be measured, they may be indicative of a tendency toward entrepreneurship. He tried to make an attempt to differentiate by personality traits between the individuals who are entrepreneurs and those who are not. He found that achievement motivation, achievement values and dependency needs can discriminate between entrepreneurs and the others. He thought that this discrimination could be seen as a progress toward establishing a measure of entrepreneurial tendencies.

In their study, Hull et al. (1980) investigated several surveys and tried to identify the potential personality traits of individuals who were believed to be potential entrepreneurs. Their results showed that neither need for achievement nor internal locus of control inventories were useful in distinguishing between high and low likelihood of starting a business within three years. In addition, the risk and creativity scales were much better indicators than need for achievement and internal locus of control. Bird (1988) presented a model of intentionality which advances entrepreneurship in three ways. Firstly it aims to differentiate entrepreneurship from strategic management by addressing a psychological base of venture development. Secondly, the research leads the entrepreneurial behavior theory beyond bivariate and descriptive analyses. Finally, with her model the social and intra-psychic organization that both structures and precedes entrepreneurial theories and organizations can be studied.

Koh (1996) aimed to test the impact of entrepreneurial characteristics (need for achievement, locus of control, propensity to take risk, tolerance of ambiguity, self-confidence and innovations). By doing that, he attempted to distinguish between the people who are entrepreneurially inclined and those who are not on the basis of psychological characteristics. The results of his study showed that the people who are entrepreneurially inclined have greater innovativeness, more tolerance of ambiguity and higher propensity to take risks as compared to the people who are not entrepreneurially inclined.

Lee and Tsang (2001) explored the impacts of entrepreneurial personality traits, systems administration and foundation exercises on wander development among 168 Chinese business people in small and medium-sized organizations in Singapore. Those personality traits were need for achievement, internal locus of control, confidence and extroversion; foundation involves instruction and experience; organizing exercises comprise size and recurrence correspondence systems. They found that experience, networking activities, number of partners, internal locus of control and need for achievement have a positive impact on venture growth while self-reliance and extroversion have a negative impact on the number of partners and a positive impact on networking activities. The entrepreneur's industrial and managerial experience was found to have the highest effect on venture growth.

The study of Ardichvili et al. (2003) developed existing hypothetical and observational research in the territory of entrepreneurial opportunity recognition and improvement. It identified personality traits, social networks and earlier information of entrepreneurial alertness of entrepreneurs. Their theory conceived of opportunity identification/ recognition as a multistage process in which entrepreneurs play proactive roles. Reimers-Hild et al. (2005) displayed a hypothetical structure for examining the identity characteristics of effective students from remove through the perspective of business enterprise. Their hypothetical structure offers a connection between the achievement and diligence in the scholarly condition and entrepreneurial identity, which is a blend of risk-taking affinity, need for achievement and locus of control.

Gürol and Atsan (2006) tried to discover Turkish university students' entrepreneurship profile and evaluate their business introduction by contrasting them and the understudies who are not entrepreneurially inclined. In their study the personality traits; self-confidence, need for achievement, innovativeness, locus of control, resistance to uncertainty and risk-taking penchant were utilized to characterize the entrepreneurial profile of the understudies. The results of their study showed that except for tolerance for ambiguity and self-confidence, all entrepreneurial traits were found to be higher in the students who are entrepreneurially inclined compared to the students who are not.

Çetin and Varoğlu (2009) tried to determine the role of personality traits in entrepreneurial activities, focused on theoretically how the personality pattern of an entrepreneur could be. To do that, they studied the big five personality traits, which were proven for psychometric validity in organizational behavior literature, such as job performance, leadership and job satisfaction. As a result of their meta analyses, they found that personality traits cannot be neglected in entrepreneurship research.

Keat et al. (2011) investigated the inclination towards entrepreneurship among university students in the northern region of Malaysia and they aimed to examine the relationship between entrepreneurial education and inclination towards entrepreneurship. They carried out an empirical test on the data gathered from questionnaires. The results showed that two entrepreneurial education variables were found to have statistically significant relationships with the inclination towards entrepreneurship. In addition, two demographic variables and family business background variables had an effect on university students' inclination towards entrepreneurship.

Yurtkoru et al. (2014) measured the effect of willingness to take risk on entrepreneurial intentions and compared students of private and state universities. They found that being a risk lover had a positive and moderate effect on entrepreneurial intentions. Moreover, results indicated that entrepreneurial intentions and willingness to take risk of university students varied in private and state universities. Students of private universities had more entrepreneurial intentions than the others.

Zhang et al. (2014) tried to identify the relationship between perceived feasibility and desirability, prior entrepreneurial exposure, entrepreneurial education and entrepreneurial intentions for university students. They found that there was a significant negative impact from exposure and a significant positive effect from entrepreneurial education. Males and people from technological universities had higher entrepreneurial intentions than females and people from other universities and backgrounds. In addition, there were also significant positive effects by gender, study major and university type on the relationship between entrepreneurial intention and entrepreneurship.

Lim et al. (2015) tried to investigate the part of entrepreneurial readiness as a mediator variable for social capital, prior knowledge and personality traits in influencing entrepreneurial intention potential by using structural equation modelling. Their findings indicated that there were significant relationships between three variables; social capital, prior knowledge and personality traits, with entrepreneurial intention which

was mediated by entrepreneurial alertness. Prior knowledge in the form of entrepreneurship courses, social capital and entrepreneurial experience had positive relationships with entrepreneurial intention.

Çolakoğlu and Gözükara (2016) purposed to analyze qualities of identity in light of the mentalities of individuals who are university students toward enterprise business. The identity qualities they utilized as a part of their exploration were: need for accomplishment, entrepreneurial alertness, innovativeness and locus of control. According to their results, students with the entrepreneurial intention tend to be more innovative and to have greater internal locus of control and need for achievement. Mueller and Thomas (2000) offered hypotheses to investigate the relationship between two of Hofstede’s cultural dimensions and personality traits that associated with entrepreneurial potential. However they only examined two entrepreneurial traits such as internal locus of control and innovativeness. Their results showed that some cultures were more conducive for entrepreneurship than the other cultures. They also found that the entrepreneurial orientation, which is a combination of internal locus of control and innovativeness was more likely in individualistic, low uncertainty avoidance cultures than collectivistic, high uncertainty avoidance cultures.

Utsch and Rausch (2000) wanted to extend the previous research and thus tested a model that initiative and innovativeness were the mediator variables between the achievement orientation including internal locus of control, need for achievement, higher order strength of need and self efficacy and the performance of venture. Their results indicated that innovativeness was a mediator between achievement orientation and venture performance but initiative was not a mediator. Zhao et al. (2005) used structural equation modeling with a sample of 265 master students across 5 universities to investigate the mediating role of self-efficacy in the development of students’ intentions to become entrepreneurs. They found that the effects of perceived learning from entrepreneurship related courses, entrepreneurial experience and risk propensity on entrepreneurial intentions were mediated by entrepreneurial self-efficacy. Zhao and Seibert (2006) used meta-analytical techniques to investigate the relationship between entrepreneurial status and personality traits. Personality variables that used in the previous researches were categorized according to the five factor model of personality. They found significant differences between managers and entrepreneurs on four dimensions of personality such as conscientiousness, neuroticism, agreeableness and openness to experience.

### 3. Methodology

This research was conducted on college students who study at the Department of Business Administration (Faculty of Economics and Administrative Sciences) in Bursa, Turkey. Convenience sampling method was used. The data were gathered between February-March in 2017. 245 questionnaires were collected from respondents. 26 of them were excluded as they were not complete based on the initial screening. SmartPLS 3.0 and IBM SPSS 21.0 were used in order to analyze the data. Structural equation modelling is used to test the influence of entrepreneurial personality on entrepreneurial intention. Table 1 shows the respondents’ profile.

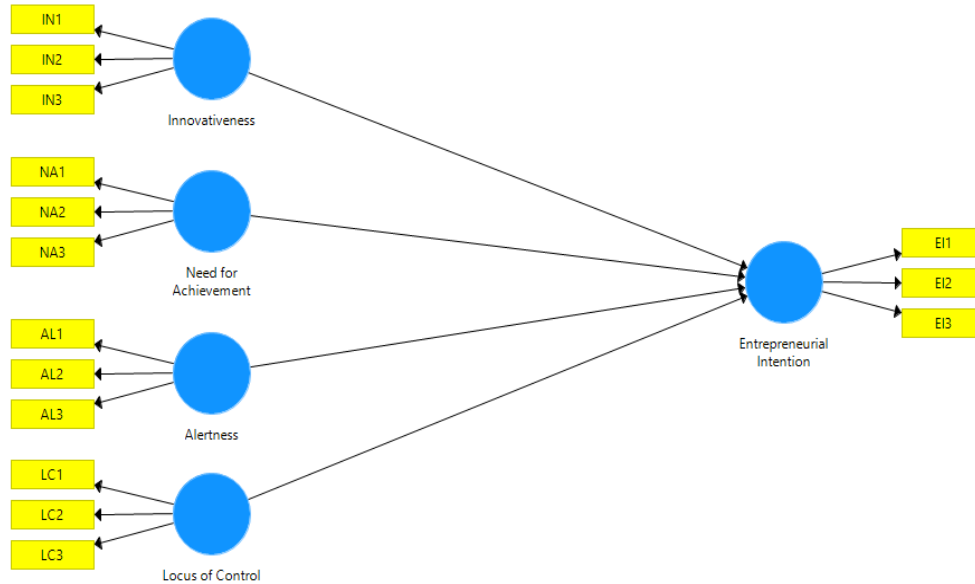
**Table 1:** Profile of Respondents

<b>Sex</b>	<b>Frequency</b>	<b>%</b>	<b>Participated in Erasmus</b>	<b>Frequency</b>	<b>%</b>
Male	92	42.0%	Yes	14	6.4%
Female	127	58.0%	No	205	93.6%
Total	219	100.0%	Total	219	100.0%
<b>Age</b>	<b>Frequency</b>	<b>%</b>	<b>Do Internship</b>	<b>Frequency</b>	<b>%</b>
18-22	129	58.9%	Yes	102	46.6%
23-25	87	39.7%	No	117	53.4%
26-30	3	1.4%	Total	219	100.0%
Total	219	100.0%			
<b>Take an Entrepreneurship Course</b>	<b>Frequency</b>	<b>%</b>	<b>Entrepreneur in Family</b>	<b>Frequency</b>	<b>%</b>
Yes	145	66.2%	Yes	142	64.8%
No	74	33.8%	No	77	35.2%
Total	219	100.0%	Total	219	100.0%

### 3.1. Research Model and Hypotheses

The research model is shown in Figure 1. As it can be seen, the research model includes the variables, which are; “innovativeness”, “need for achievement”, “alertness”, “locus of control” and “entrepreneurial intention”.

**Figure1:** Research Model



The hypotheses of the research are:

- H<sub>1</sub>: “Innovativeness” positively influences “entrepreneurial intention”.  
H<sub>2</sub>: “Need for achievement” positively influences “entrepreneurial intention”.  
H<sub>3</sub>: “Alertness” positively influences “entrepreneurial intention”.  
H<sub>4</sub>: “Locus of control” positively influences “entrepreneurial intention”.

### 3.2. Scale Used in Research and Construct Validity

Examining the literature, a structured questionnaire was designed (Owoseni, 2014; Ozaralli and Rivenburgh, 2016; Çolakoğlu and Gözlükara, 2016).

**Table 2:** Scale Used in Research

Dimension	Scale Items
<b>Innovativeness</b>	<b>IN1.</b> I often surprise people with my novel ideas.
	<b>IN2.</b> People often ask me for help in creative activities.
	<b>IN3.</b> I am not a very creative person.
<b>Need for Achievement</b>	<b>NA1.</b> I will do very well in fairly difficult task relating to my study and my work.
	<b>NA2.</b> I will try hard to pass work performance.
	<b>NA3.</b> I will seek added responsibilities in jobs assigned to me.
<b>Alertness</b>	<b>AL1.</b> I think about work-related matters in my free time to start my own business.
	<b>AL2.</b> I think about work-related matters even during my holidays to start my own business.
	<b>AL3.</b> I think about new business ideas in my free time to start my own business.



<b>Locus of Control</b>	<b>LC1.</b> My success depends on whether I am lucky enough to be in the right place at the right time.
	<b>LC2.</b> When I get what I want, it is usually because I am lucky
	<b>LC3.</b> Success in business is mostly a matter of luck.
<b>Entrepreneurial Intention</b>	<b>EI1.</b> I never see myself becoming an entrepreneur.
	<b>EI2.</b> I have considered becoming an entrepreneur one day.
	<b>EI3.</b> I have never given the start-up of an enterprise much thought.

Table 3 shows the results of construct validity. Fornell and Larcker (1981) indicates that the AVE (Average Variance Extracted) values of the structure must be 0,50 or more for the validity of latent structures. Results show that the AVE values for Innovativeness, Need for Achievement, Alertness, Locus of Control and Entrepreneurial Intention are 0.65, 0.59, 0.82, 0.61 and 0.74. As the result of the analysis carried out with SmartPLS and PLS estimation method, the composite reliability value is given. Composite Reliability value should be 0,70 or above (Cortina, 1993).

**Table 3:** Construct Validity

<b>Construct</b>	<b>Item</b>	<b>Outer Loading</b>	<b>AVE<sup>a</sup></b>	<b>CR<sup>b</sup></b>
Innovativeness	IN1	0.85	0.65	0.85
	IN2	0.79		
	IN3	0.78		
Need for Achievement	NA1	0.81	0.59	0.81
	NA2	0.74		
	NA3	0.75		
Alertness	AL1	0.94	0.82	0.93
	AL2	0.85		
	AL3	0.93		
Locus of Control	LC1	0.62	0.61	0.82
	LC2	0.77		
	LC3	0.92		
Entrepreneurial Intention	EI1	0.85	0.74	0.92
	EI2	0.87		
	EI3	0.87		

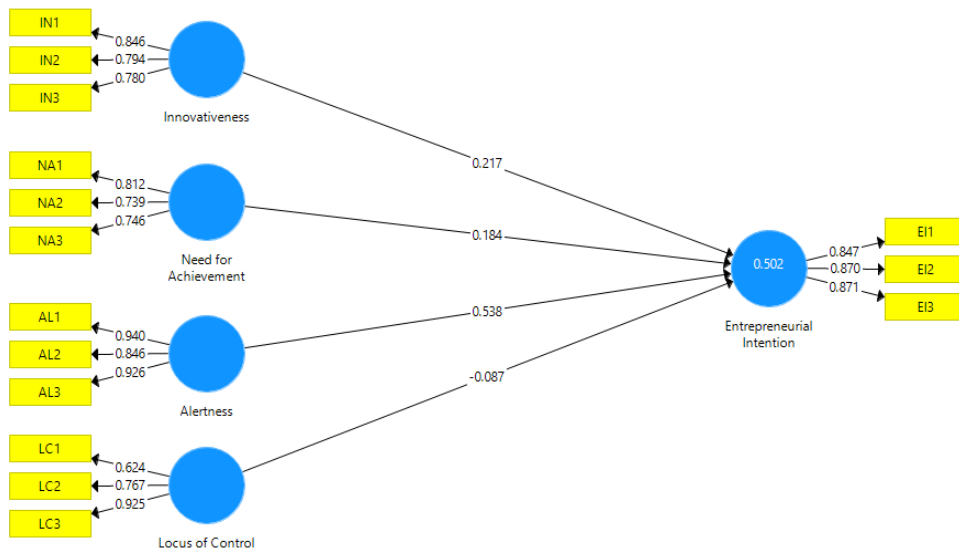
<sup>a</sup> Average variance extracted (AVE) = (summation of the square of the factor loadings)/{(summation of the square of the factor loadings)+(summation of the error variances)}.

<sup>b</sup> Composite reliability (CR) = (square of the summation of the factor loadings)/{(square of the summation of the factor loadings)+(square of the summation of the error variances)}.

### 3.3. Testing the Research Model by Using Partial Least Square

Figure 2 shows the structural model with path coefficients. Innovativeness, need for achievement and alertness dimensions of entrepreneurial personality influences entrepreneurial intention positively according to the modeling results. On the other hand, locus of control was not found to have a significant influence on entrepreneurial intention statistically.

**Figure 2: Structural Model and Path Coefficients**



**Table 4: Result of Hypothesis Testing and Structural Relationships**

Hypothesis	Path	Path Coefficient	t-Statistic <sup>a</sup>	Decision
H <sub>1</sub>	Innovativeness - Entrepreneurial Intention	0.22	3.80***	Supported
H <sub>2</sub>	Need for Achievement - Entrepreneurial Intention	0.18	3.15***	Supported
H <sub>3</sub>	Alertness - Entrepreneurial Intention	0.54	10.15***	Supported
H <sub>4</sub>	Locus of Control - Entrepreneurial Intention	-0.09	1.52	Not Supported

<sup>a</sup> t-values for two-tailed test

\* 1.65 (sig. level 10%)

\*\* 1.96 (sig. level=5%)

\*\*\* t-value 2.58 (sig. level=1%) (Hair et al., 2011; Rezaei, 2015)

The path coefficients between “innovativeness and entrepreneurial intention”, “need for achievement and entrepreneurial intention”, “alertness and entrepreneurial intention ” and “locus of control and entrepreneurial intention” are 0.22, 0.18, 0.54 and -0.09. H<sub>1</sub>, H<sub>2</sub> and H<sub>3</sub> are supported (sig.level=1%) but H<sub>4</sub> is not supported according to the t-statistics.

### Discussion and Implications

Understanding entrepreneurship and the entrepreneurial personality traits is an important issue for governments as many countries face various economic problems in this era. Turkey has an important amount of young population and by educating and guiding these young generation properly, economic problems may be reduced and solved. This research helps to draw pertinent and valuable ramifications for practitioners and

academicians in advanced education. It is vital for chiefs, college supervisors, local professionals and other specialists to examine the effect of entrepreneurial personality on entrepreneurial intention. Therefore, managers can create strategies which would enable them to assess their status in the system of education. Furthermore, experts can likewise utilize the results to recognize what turns students into prospering entrepreneurs.

According to the results; alertness, innovativeness and need for achievement can be seen as three significant factors which affect entrepreneurial intention. On the other hand, the locus of control was not found to have a significant effect on entrepreneurial intention. Thereby, H1, H2, H3 were supported and H4 was not supported. The H1 result is similar to the study of Lumpkin and Dess (1996), in which they found that innovativeness plays an important role in entrepreneurial orientation. Koh (1996) also found that innovativeness is a very important personality trait which has an effect on entrepreneurial intentions. Utsch and Rauch (2000) found that innovativeness plays an important role in entrepreneurship but as a mediator. This study differs from theirs as innovativeness has a direct and positive impact on entrepreneurial intentions. Lim et al (2015) found that alertness is a mediator between entrepreneurial intention and personality. In this research, alertness is an independent variable which affects entrepreneurial intention positively.

Gürol and Atsan (2006) detected that innovativeness, need for achievement and locus of control are connected with the entrepreneurial intentions of individuals. Even though it is found that innovativeness and need for achievement affect entrepreneurial intention positively in this study, locus of control has no positive effect on the entrepreneurial intention, which is different from their result. The H2 result supports the findings of Lachman (1980), Sagie and Elizur (1999), Brice (2004) and de Pillis and Reardon (2007). Additionally, the results of H1, H2, H3 support the findings of Çolakoğlu and Gözükara (2016). Hansemark (1998) proposes that locus of control and need for achievement should be enhanced to create or improve entrepreneurial intentions. Although the result of hypothesis 2 supports the findings of Hansemark (1998) and Lee and Tsang (2001), it differs from the same studies when it comes to the locus of control variable.

There were different influences among the dimensions of entrepreneurial personality according to the results of the structural model. The influence of alertness on entrepreneurial intention was the most important one. The insight gained in the light of the findings would let practitioners settle on successful decisions and create strategies in higher education.

The discoveries of the research may be utilized to create strategies in the region of Bursa and the local university. To start with, the understudies who are enthusiastic about business enterprises may be located by making analyses or tests. After that, for improving their entrepreneurial personality dimensions, seminars, lectures, opportunities for coaching and networking can be provided for them. They can be led to be successful entrepreneurs by these sorts of activities. Meetings can be arranged for entrepreneur candidates to meet successful entrepreneurs (especially young ones) and by doing that, effective entrepreneurs may share their experiences and life stories with them. Therefore, young students can be inspired by them to be successful entrepreneurs. For entrepreneurial education of the local university including stakeholders in teaching and coaching activities, open innovation is needed.

As automotive and machinery manufacturing are the leading sectors in Bursa, it is famous for being an important industrialized city of Turkey. The most companies in Bursa are small and medium-sized companies that compete internationally. Formal arrangements can be made for the students who are interested in entrepreneurship with the major companies in Bursa. By having part time jobs or internships, students can have a chance to observe major companies. Additionally, young entrepreneurs with a specific goal are needed to enhance the competitiveness of the region. Business incubator programmes can be implemented for this reason.

This study has three main limitations. First of all, the sample consists of university students which may limit the applicability of the results to other sample groups. Secondly, the research has been conducted in Bursa. The research can be widened by applying it to university students in other cities. Lastly, the influence of demographic characteristics on entrepreneurial intention may be examined in order to extend the existing literature of entrepreneurship. This may help decision makers to develop more effective strategies. The future researches should focus on the effect of demographic attributes on entrepreneurial intention of the university students. Besides, the research sample should be extended to the sample of Turkey in order to get more realistic results.

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