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**DIFFERENCES IN ENTREPRENEURIAL INTENTION AND  
CHARACTERISTICS ACCORDING TO DEMOGRAPHICS AND  
OTHER FACTORS**

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***Abstract***

Entrepreneurship is a subject that has been emphasized especially over the last decades as the driving force of economic development and social prosperity. Majority of the research focused on personality traits and contingency factors. There are many more factors that are thoroughly investigated for their role in the orientation of people to entrepreneurial activities such as the environment, culture, role models, education and work experience. In this paper we compared variance in the entrepreneurial intention and entrepreneurial characteristics of innovativeness, need for achievement, need for autonomy and risk-taking propensity according to age, gender, attendance to entrepreneurship course and entrepreneurs in the family. The survey administrated to a sample of 607 university students and graduates showed the following results; it is found that males are more entrepreneurially intended than females; similarly people who had taken entrepreneurship course and people who have entrepreneurs in their family have higher entrepreneurial intention, married people have lower risk-taking propensity but higher need for achievement and risk-taking decreases with age. Research outcomes discussed for strategic management and managerial aspects.

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**Keywords:** Entrepreneurial intention, entrepreneurial characteristics, innovativeness, entrepreneurs in the family, entrepreneurship education.



## 1. Introduction

Market dynamism and chaos constitute a continuous challenge for the established firms and an opportunity for the newly established ventures. Benefits of successfully established and managed entrepreneurial ventures are tremendous for the society: with substantially increasing growth, employment and innovation these companies are seen as remarkable cures for recessed economies of our century. In general, most of the new ventures fails within a few years after their establishment. Therefore, in order to provide sustainable performance and growth, start-ups need to be managed by well-educated talented human capital. Accordingly, for successfully managing risks of penetration and survival in highly competitive markets, new firms need to develop brand new technologies, processes or services; so they try to innovate (e.g. Kilic, Ulusoy, Gunday, & Alpan, 2015). By creating diversity in goods and services, they do not only strengthen their competitive position but also they stimulate economic performance of their countries (Valliere & Peterson, 2009). Furthermore, newly founded firms decrease unemployment with creating new opportunities for job seekers (Masuda, 2006). Then, the question arises, if entrepreneurship is such a valuable tool for economic welfare and if well-educated and talented people can sustain this welfare, how can we boost entrepreneurial tendencies of university students and graduates and encourage them to choose an entrepreneurial career? If well educated people do not choose to become entrepreneurs societal prosperity will be under question.

Analyzing individuals' thought processes, differentiating entrepreneurial-minded people from others, recognizing personality characteristics of entrepreneurs should be initial steps in revealing latent entrepreneurs and promoting entrepreneurship. Factors that drive, motivate and enable people to become entrepreneurs are diverse; exposure to entrepreneurship either from personal experiences or media (Baron, 2004), cultural setting (George & Zahra, 2002), environmental factors e.g. availability of capital, personality characteristics, demographic factors and educational background; all can stimulate entrepreneurial thinking. In this research we measured presence of four entrepreneurial characteristics, namely; need for achievement, innovativeness, propensity to take risks, need for autonomy in addition to entrepreneurial intention of our sample which consists of people with different ages and gender. We also evaluated differences of people who have entrepreneurs in their family and who took entrepreneurship course earlier in their career to those do did not. Lastly, we discussed managerial implications and future research suggestions.

## 2. Literature Review and Theoretical Framework

In the recent literature there is an established support for the linkage of entrepreneurial intention to some entrepreneurial characteristics (e.g. Saral & Alpan, 2017) however demographical and other possible factors behind them also need to be explored

### 2.1. Entrepreneurial Intention

Intention can be described as the plan or the imagination of things to be performed by the individual in the future. Intention is distinct from random imagination and thinking since it is prerequisite step for planned behaviour (Ajzen, 1991) and leads to action e.g. forming a company. Entrepreneurial intention is

a well-known, popular and reliable construct frequently adopted in empirical studies in entrepreneurship research. It is a practical way to interpret why some decide to follow an entrepreneurial career while others do not. Approaches for resolving entrepreneurial intention most commonly assess contingency, environmental and/or personality factors. However various other variables like demographics, educational background, entrepreneurs in the family can also matter.

## **2.2. Entrepreneurial Characteristics**

A long list of personality traits is associated with entrepreneurs. Some earlier researchers proposed to abandon studying entrepreneurial personality and traits due to inconsistent results (Brockhaus & Horwitz, 1986; Gartner, 1989). However, some other trait studies found significant differences between entrepreneurs and other groups for a shorter list of personality traits (Zhao, Seibert, & Lumpkin, 2010).

### **2.2.1. Need for achievement**

McClelland's (1961) Acquired Needs Theory suggested that need for achievement is one of the major drivers of human motivation. According to him it is a considerable factor for people to act entrepreneurially. Individuals with high need for achievement do not feel satisfied with completing ordinary tasks and having usual successes. They aim to be better and more recognized than their colleagues and peers. These people often set high personal targets for themselves and in case of failures they take responsibility. Entrepreneurs believed to possess high need for achievement and related studies and meta analyses found evidence about their difference from other professional groups e.g. managers (Collins, Hanges, & Locke, 2004; Stewart Jr & Roth, 2004; Alpkın, Keskin, & Zehir, 2002).

### **2.2.2. Innovativeness**

Innovativeness is becoming more and more critical for survival of companies in these turbulent times. Compared to incumbent firms, newly founded firms' entrance to a market requires competitive power which they obtain from more efficient, better functioning, superior outputs. For this reason, start-ups need to be associated with innovation. Researches about innovativeness found entrepreneurs and entrepreneurially inclined people show this specific characteristic more than others (Chye Koh, 1996; Johnson, 1990; Robinson, Stimpson, Huefner, & Hunt, 1991).

### **2.2.3. Need for Autonomy**

People with high need for autonomy dislike requirements of getting approvals and/or orders from their superiors in the workplace. Their desire to avoid constraints and limits lead them to independence-favouring careers such as entrepreneurship. Several other authors linked need for autonomy with entrepreneurs. For example, according to Baum, Frese, and Baron (2014) an entrepreneurial-minded person may prefer to work harder independently in order not to be obliged to work under a boss. And BarNir, Watson, and Hutchins (2011) stated that possibility to act independent is one of the fundamental rewards in entrepreneurship.

#### **2.2.4. Risk Taking Propensity**

From the initial definitions to contemporary studies, risk taking has always been associated with entrepreneurship. Because choosing to start a company inherently includes unavoidable risks to individual's finances, relationships, mental health etc. Unsurprisingly researchers (e.g. Nieß and Biemann, 2014) found that risk taking has a predictive value for self-employment. Studies comparing entrepreneurs and control groups stressed significant differences in their risk taking propensities (Herranz, Krasa, & Villamil, 2015; Kan & Tsai, 2006).

### **2.3. Demographics**

#### **2.3.1. Gender**

Number of female entrepreneurs are continuously growing, and studies related to gender are increasingly relevant (Chowdhury & Endres, 2005; Fischer, Reuber, & Dyke, 1993). Nevertheless, entrepreneurship is still commonly seen as a male arena (Wilson, Kickul, & Marlino, 2007). Researchers found differences among males and females in their entrepreneurial intent and characteristics. (Endres, Chowdhury, & Alam, 2008; Gatewood, Shaver, Powers, & Gartner, 2002). So, our initial hypotheses are:

*H1a: Men have higher entrepreneurial intention than women.*

*H1b: Men's entrepreneurial characteristics are higher than women's.*

#### **2.3.2. Marital Status**

Marriage can have effects on people's concerns, values and priorities. It is a decision for a way of life. Additionally, it also changes responsibilities and decisions especially pertaining to the financial aspects of one's life. Due to risks associated with entrepreneurship e.g. possibility of losing all the savings, a married person may doubt to invest money to risky projects considering the future of his or her family. Single people may feel easier to assume such risks (Grable, 2000; Lazzarone, 1996; Sung & Hanna, 1996). Therefore, our second hypothesis is:

*H2: Married people's risk-taking propensity is lower than singles.*

#### **2.3.3. Age**

As people get older they may cultivate different points of view about life and their career. People may think more conservatively about their capabilities and visions. As a result, they may become uninterested in taking substantial risks requiring extra time and energy to manage these risks and recover losses. Some earlier studies concluded that older people were more risk-averse than younger ones. (Kanodia, Bushman, & Dickhaut, 1989; Riley Jr & Chow, 1992; Vroom & Pahl, 1971) So our third hypothesis is:

*H3: Older people's risk-taking propensity is lower than younger people.*

## **2.4. Education and Relatives**

### **2.4.1. Entrepreneurship Course**

Growing importance of entrepreneurship initiated and popularized entrepreneurship teaching programs across the globe. These programs can provide insight for latent or nascent entrepreneurs. According to Mueller (2011) questions about relations between having entrepreneurial training and having increased entrepreneurial intention already belong to the past where the relationship is already proven, consequently researches can focus on increasing effectiveness of the programs. Moreover the linkage training and characteristics need to be explored. Respectively our hypotheses are:

*H4a: People who had already taken entrepreneurship course have higher entrepreneurial intention than others.*

*H4b: People who had already taken entrepreneurship course have higher entrepreneurial characteristics than others.*

### **2.4.2. Entrepreneurial Relatives**

Although most studies examined family and business as separate institutions, growing number of researches emphasized that they are interconnected (Aldrich & Cliff, 2003). Starting up a business can be seen as an individual decision however having an entrepreneur in the family may have an impact on the former's thoughts, observations, and opportunity recognition where the entrepreneur can be seen as a role model. Therefore, our last hypothesis is:

*H5: People who have entrepreneurs in their family have higher entrepreneurial intention than others.*

## **3. Research Method**

### **3.1. Measurement**

For the measurement of entrepreneurial intentions, the scale developed by Linan and Chen (2009) is used. In order to measure risk propensities, scale used by Koh (1996) in his assessment of MBA students' entrepreneurial characteristics is adopted. Remaining characteristics, namely; need for achievement, innovativeness and need for autonomy are evaluated with the scales developed by Özer (2017) in her PhD thesis.

### **3.2. Sample and Data Collection**

For the reasons of accurate data collection, ease of delivery and creation; data is collected with an internet survey (Balch, 2010). It is distributed via email lists of numerous universities across Turkey with the help of contacts in associated universities. This allowed us to form a sample consisting of university students and university graduates with different backgrounds. Alumni networks are also included; hence our sample also covers graduates and differs in age.

## 4. Analyses and Results

### 4.1. Descriptive Statistics

**Table 01.** Frequencies for Gender and Marital Status

Variables		N	%
Gender	Male	499	82.2
	Female	108	17.8
	Total	607	100
Marital Status	Single	417	68.7
	Married	190	31.3
	Total	607	100

**Table 02.** Frequencies for Course and Family

Variables		N	%
Entrepreneurship Course	Yes	198	32.6
	No	409	67.4
	Total	607	100
Entrepreneurs in the family	None	388	63.9
	First-degree relatives	175	28.8
	Second-degree relatives	44	7.2
	Total	607	100

**Table 03.** Frequency Intervals for Age

Age Intervals	N	%
20-25	349	57.5
26-30	101	16.6
31-35	80	13.2
36-40	56	9.2
40+	21	3.5
Total	607	100.0

Majority of the sample are single (68.7%) and males (82.2%). Only 32.6 % of the respondents appeared to have entrepreneurship course in their career. Again only 175 out of 607 participants reported that they have entrepreneurs in their core family. Sample mostly consists of people aged between 20-25 years (%57.5). In brief most (about two third) of our respondents seem to be young and single males which did not taken entrepreneurial courses and entrepreneur relatives in their family (as seen in Tables 1,2,3).

## 5. Correlation Analysis

**Table 04.** Correlations

	Need for Achievement	Need for Autonomy	Innovativeness	Risk Propensity	Entrepreneurial Intention	Age
Need for Achievement	1					
Need for Autonomy	.510**	1				
Innovativeness	.630**	.618**	1			
Propensity to Take Risks	.275**	.384**	.384**	1		
Entrepreneurial Intention	.323**	.413**	.423**	.485**	1	
Age	.093*	.025	.061	-.135**	-.018	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Correlation analysis showed that all of the assessed entrepreneurial characteristics are positively related to each other and also to the entrepreneurial intention significantly ( $p < 0.01$ ). Risk propensity seems to be mostly correlated characteristic with the entrepreneurial intention, while need for achievement seems to be relatively the least correlated one with this intention. Again risk-taking propensity showed this time a negative correlation with age ( $r = -0,135$ ) which is also significant at  $p < 0.01$  as hypothesized. This means that as age increases risk taking propensity decreases (H3 supported). Meanwhile another finding that has come out about age is its positive correlation with need for achievement at  $p < 0.05$ . This means as age increases need for achievement increases too as a non-hypothesized relation (as seen in Table 4).

### 5.1. T-Tests

#### 5.1.1. Gender

Table 5 shows, according to the t tests conducted to uncover differences between the mean scores of men and women, that entrepreneurial intentions are significantly different (p value of 0.001 and t-value of 3.479). Males reported higher entrepreneurial intention (mean= 3.54 out of 5) than females (mean= 3.13) (H1a supported). As for entrepreneurial characteristics, only need for autonomy indicated slightly significant difference between men (mean= 3.89) and women (mean= 3.73) in such a way that men's need for autonomy is a bit higher (H1b partially supported). In brief men seem to be more inclined to pursue an entrepreneurial career path and need to feel more independent when compared to women. No significant difference was found about the other characteristics.

**Table 05.** t test for Gender

	Gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)	Mean Difference
Entrepreneurial Intention	Male	499	3.5438	1.12951	3.479	0.001	0.40487
	Female	108	3.1389	.92796			
Need for Achievement	Male	499	4.3985	.68486	1.115	0.265	0.07902
	Female	108	4.3194	.58278			
Innovativeness	Male	499	4.2211	.77772	0.792	0.428	0.0637
	Female	108	4.1574	.65561			
Need for Autonomy	Male	499	3.8910	.75611	1.99	0.047	0.1595
	Female	108	3.7315	.75190			
Propensity to Take Risk	Male	499	3.0695	.95566	-0.49	0.624	-0.04781
	Female	108	3.1173	.72925			

### 5.1.2. Marital Status

Table 6 depicts the results of the t-tests conducted to discover differences between single and married respondents, considering their mean scores in entrepreneurial intention and characteristics. This comparison showed that mean risk-taking scores of singles came out to be higher than married participants as expected with  $p < 0.005$  and t-value 2.791 (H2 supported). Moreover, as a non-hypothesised finding, need for achievement scores of married people appeared to be higher than single respondents with  $p < 0.003$  and t-value -2.962. No significant difference was found about the other entrepreneurial characteristics and about the entrepreneurial intention.

**Table 06.** t test for Marital Status

	Marital Status	N	Mean	Std. Deviation	T	Sig. (2-tailed)	Mean Difference
Entrepreneurial Intention	Single	417	3.4748	1.08762	0.102	0.919	0.00991
	Married	190	3.4649	1.14995			
Need for Achievement	Single	417	4.3305	.69841	-2.962	0.003	-0.1721
	Married	190	4.5026	.58052			
Innovativeness	Single	417	4.1851	.76302	-1.192	0.234	-0.07898
	Married	190	4.2640	.74379			
Need for Autonomy	Single	417	3.8312	.76742	-1.517	0.13	-0.1004
	Married	190	3.9316	.73157			
Propensity to Take Risks	Single	417	3.1479	.92593	2.791	0.005	0.22332
	Married	190	2.9246	.88716			

### 5.1.3. Entrepreneurship Course

**Table 07.** t-test for Entrepreneurship Course

	Entrep. Course	N	Mean	Std. Deviation	t	Sig. (2-tailed)	Mean Difference
Entrepreneurial Intention	Yes	198	3.6902	1.09722	3.415	0.001	0.3243
	No	409	3.3659	1.09683			
Need for Achievement	Yes	198	4.4428	.69693	1.499	0.134	0.08661
	No	409	4.3562	.65265			
Innovativeness	Yes	198	4.3005	.73366	2.059	0.04	0.13465
	No	409	4.1659	.76554			
Need for Autonomy	Yes	198	3.9333	.79797	1.603	0.109	0.10497
	No	409	3.8284	.73523			
Propensity to Take Risks	Yes	198	3.3232	.89330	4.651	0.001	0.36398
	No	409	2.9593	.90889			

Table 7 exhibits the results of the t-tests conducted to discover differences between those respondents who have already taken any entrepreneurial course and those who did not, considering their



mean scores in entrepreneurial intention and characteristics. As predicted, respondents who had enrolled previously in an entrepreneurship course showed higher entrepreneurial intention with  $p < 0.001$  and t-value of 3.415 (H4a supported). Additionally, these people displayed higher risk-taking propensity with  $p < 0.001$ , t value of 4.651 and higher innovativeness with  $p < 0.04$ , t value of 2.059 (H4b partially supported). No significant difference was found about the needs for achievement and autonomy.

## 5.2. ANOVA

**Table 08.** ANOVA for Entrepreneurial Intention and Having an entrepreneur in family

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.487	2	4.744	3.911	.021
Within Groups	732.555	604	1.213		
Total	742.042	606			

We collected entrepreneur family member data in open ended form. Followingly, we categorized them and made the distinction between close family members (mother, father, brother, sister) and more distant ones (uncle, aunt etc.). Then we run ANOVA and found significant difference between three group means; namely, (1) people who do not have entrepreneurs in their entire family, (2) people who have entrepreneur(s) among their first-degree relatives, and (3) people who have entrepreneurs among their second-degree relatives.

Post-hoc test of Tukey HSD revealed that people who have entrepreneurs among their close family members have significantly more entrepreneurial intention than people who don't have any entrepreneurs in their family.

**Table 09.** Post-hoc test: Tukey HSD (Dependent Variable: Entrepreneurial Intention)

(I) Entrepreneurs in the family	(J) Entrepreneurs in the family	Mean Difference	Std. Error	Sig.
None	First-degree relatives	-.26676*	.1002	.022
	Second-degree relatives	-.23184	.1751	.383
First-degree relatives	None	.26676*	.1002	.022
	Second-degree relatives	.03491	.1857	.981
Second-degree relatives	None	.23184	.1751	.383
	First-degree relatives	-.03491	.1857	.981

\*. The mean difference is significant at the 0.05 level.

## 6. Conclusion and Discussions

### 6.1. Summary of the findings

Our analysis emphasizes entrepreneurial intention and entrepreneurial characteristics can vary greatly according to demographic variables- age, gender and other variables like – exposure to

entrepreneurial education and entrepreneur family members. Males displayed higher entrepreneurial intent than females. People who had entrepreneurial course during their careers also appeared to have higher entrepreneurial intention, risk-taking propensity and innovativeness than who hadn't. Risk-taking propensity came out to decrease with age. Singles displayed higher risk-taking propensity than married. Beyond hypotheses, some other significant findings also came out in a such a way that specifically need for achievement increases with age and it is higher in married people. Following table summarises the findings and status of the proposed hypotheses.

**Table 10.** Hypothesis Acceptance or Rejection

Hypothesis Statements	Status
H1a: Males have higher entrepreneurial intention than females.	Accepted
H1b: Males have higher entrepreneurial characteristics scores than females.	Partially supported
H2: Married people have lower risk propensity scores than singles	Accepted
H3: Older people have lower risk propensity than younger ones.	Accepted
H4a: People who had already taken entrepreneurship course have higher entrepreneurial intention than others.	Accepted
H4b: People who had already taken entrepreneurship course have higher entrepreneurial characteristics than others.	Partially supported
H5: People who have entrepreneurs in their family have higher entrepreneurial intention	Accepted

## 6.2. Managerial implications

In today's global competitive environment, businesses face scarcity in talent. For this reason, managing human resources effectively is an undeniable necessity for sustaining competitive advantage. Managers should be conscious about their employees' intentions and characteristics and assign them tasks accordingly. As for the managers in established private companies talent attraction and retention within the company is a must; intrapreneurs should be appreciated and compensated for their work to keep them motivated. As for the public policy makers responsible from developing entrepreneurship and start-ups, supporting those talented people who can initiate and run successful start-ups is another must. Particularly for start-ups where every member of the organization has a key role, employee turnover can hurt company's strategies and outlook. In both cases researchers should provide indicators and drivers of individuals' entrepreneurial intentions and characteristics.

Policies of retention of intrapreneurs within the company and policies of support for entrepreneurship & start-ups seem to be conflicting with each other in theory. However they share the same principles of discovering and developing entrepreneurial minded human capital in common; therefore uncovering drivers of entrepreneurial intention and entrepreneurial characteristics may help both policies. In this concern, based on our findings about differences, we can induce that promising candidates for

entrepreneurship seem to be those people who are young and male candidates (since their risk propensity, need for autonomy and entrepreneurial intention are higher) who have entrepreneur relatives and have already taken entrepreneurship course. Specifically, for women (since their entrepreneurial intention is lower), married people (since their need for achievement is higher but risk taking propensity is lower) and elderly people (since their need for achievement is higher) intrapreneurship may be a better career path.

### 6.3. Future Research Implications and Conclusion

Miscellaneous factors can have an impact on people's perception of and orientation to entrepreneurship. These factors (e.g. income level, gender, age, education, marital status, culture, size of the family, birth place etc.) can have numerous effects on people's intent to become an entrepreneur. In some other cultural settings, other contingency variables may also intervene. Further researchers should count these aspects and consider longitudinal and cross-cultural studies or other methods for more direct and causal linkages.

As a conclusion, entrepreneurial characteristics which seem to be more supportive for starting a new business are need for autonomy and relatively higher propensity for risk taking, and those more convenient for intrapreneurship are need for achievement and relatively lower propensity for risk taking. As for the first category of characteristics, the talent pool should include primarily younger men who have taken entrepreneurship course(s) and who have entrepreneur relative(s). As for the second category of characteristics, the talent pool should include primarily older and married men or women who may work as if they are entrepreneurs within an already established workplace but without taking individual risks. For both cases innovativeness is a must.

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