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ENTREPRENEURIAL INTENTIONS CONCERNING GENDER VARIABLE: THE CASE OF UNIVERSITY STUDENTS

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Abstract

This study examines differences in entrepreneurial intentions concerning gender variables using Turkish university students in Ankara, Türkiye. The study was conducted on 287 students: 127 males and 160 females. The study results showed that the entrepreneurship scores of male students were significantly higher than female students. This finding is also consistent with the results obtained from multivariate analysis of variance (MANOVA). Gender was used as an independent variable. Leadership, Innovation, Productivity, and Responsibility were dependent variables. There was a statistically significant difference between males and females on the combined effects of four entrepreneurship intentions factors as dependent variables. An inspection of the mean scores indicated that males reported slightly higher levels of responsibility, leadership, innovation, and productivity than females. Gender differences in the four factors remained significant with multivariate analysis of co-variance analysis while controlling for other variables, such as age, income level, education level, employment status, family's own business, mother's work, and the entrepreneurial aspect. This analysis reveals that gender differences in entrepreneurial intentions (i.e. multivariate main effect) existed after controlling for these covariates.

Keywords: Gender, Entrepreneurial Intentions, University Students.

Cinsiyet Değişkenine Bağlı Girişimcilik Amacı: Üniversite Öğrencileri Örneği

Öz

Bu makale, Ankara'daki üniversite öğrencileri arasında cinsiyet değişkenlerine bağlı olarak girişimcilik niyetlerindeki farklılıkları incelemektedir. Çalışma, 287 öğrenci üzerinde gerçekleştirilmiştir: 127 erkek ve 160 kadın. Çalışma sonuçları, erkek öğrencilerin girişimcilik puanlarının kadın öğrencilerden önemli ölçüde daha yüksek olduğunu göstermektedir. Bu bulgu, çok değişkenli varyans analizi (MANOVA) sonuçlarıyla da tutarlıdır. Cinsiyet bağımsız değişken olarak kullanılmıştır. Liderlik, Yenilik, Üretkenlik ve Sorumluluk bağımlı değişkenlerdir. Erkekler ve kadınlar arasında dört girişimcilik niyeti faktörünün birleşik etkileri üzerinde istatistiksel olarak anlamlı bir fark bulunmuştur. Ortalama puanlara bakıldığında, erkeklerin kadınlardan biraz daha yüksek sorumluluk, liderlik, yenilik ve üretkenlik seviyeleri bildirdiği görülmüştür. Cinsiyet farkları, yaş, gelir seviyesi, eğitim seviyesi, istihdam durumu, ailenin kendi işi, annenin çalışıyor olması ve girişimcilik yönü gibi diğer değişkenler kontrol altına alınarak yapılan çok değişkenli kovaryans analizinde de anlamlı kalmıştır. Analiz, eş

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değişkenlerin kontrol edildikten sonra girişimcilik niyetlerinde cinsiyet farklarının (yani çok değişkenli ana etkilerinin) mevcut olduğunu ortaya koymaktadır.
Anahtar Kelimeler: Cinsiyet, Girişimcilik Amacı, Üniversite Öğrencileri.

Introduction

The healthcare industry is made up of many different industries, sub-industries, and businesses. It includes any company that provides items or services related to health and medical care, which are further classified (Ledesma et al., 2014). Significant changes have encouraged administrators to manage and lead their organizations in different manners. No longer can they rely on traditional methods. Today's healthcare managers are required to think outside the box (Rubino & Freshman, 2005). The health sector plays an important role in the service industry. Since it provides 24/7 service, it must ensure the development of students by meeting their wishes and needs.

Among the demographics gender is an important issue for organizations. The role of the gender factor emerged in the academic literature on entrepreneurship in the late 1970s (De Vita, Mari, & Poggesi, 2014). The study done by Sailus (2015) found that males were predominantly involved in economic activities and public life, while females were restricted to taking care of household activities. This prevented them from being part of economic evolvement or participating as economic equals in many countries (cited Chipeta, Kruse & Surujlal, 2020).

Gender and entrepreneurial intentions have been worked on by researchers in different areas and different countries such as Catalonia and Puerto Rico (Veciana, Aponte & Urbano; 2005), in Tanzania. (Gray et al., 2019); in Indonesia (Pandang et al., 2022); in Latin America (Vázquez-Parra, Amézquita-Zamora & Ramírez-Montoya, 2021); in India (Jena, 2020); in Türkiye (Talas, Celik & Oral, 2013; Yildirim, Cakir & Askun, 2016); in Singapure (Wang & Wong, 2004); in South Africa (Chipeta, Kruse & Surujlal, 2020); in Pakistan (Zaman, 2013); in China (Yao, Wu & Long, 2016). This is an important issue because gender differences may change from country to country, and culture to culture. The labor force participation rate of women in 2018 was 34.2%, the representation rate in the parliament was 17.3%, the female employment rate was 29.4%, and the rate of women among those working as employers was 8.7% (Sancar, 2021). In terms of monthly average income, men earn more in 75 of 81 provinces and women in 6 (Demirdirek & Sener, 2014). According to the Global Gender Gap 2019 Report, Türkiye ranks 130th among 153 countries. According to the United Nations' 2019 Gender Inequality Index, Türkiye ranks 68th among 162 countries (World Economic Forum (WEF), 2019).

The current study used data from the healthcare management program in Türkiye. The study's main objective is to determine 'genuine' gender differences concerning entrepreneurial intentions. Especially, the first research question of the study asks if entrepreneurial intention items will be different between female and male students. The second research question is to determine if gender differences in entrepreneurial intentions will still exist or not after controlling for the selected variables age, income level, education level, employment status, family's own business, mother's work, and the entrepreneurial aspect. From this evaluation, we can conclude about gender opportunities for students in Türkiye. Also, this information will contribute to the theoretical and practical underpinnings of entrepreneurial intentions for developing countries like Türkiye.

Entrepreneurship

Entrepreneurship can be considered a catalyst for economic development, checking the economy's stagnant conditions and initiating a process of growth through the invention of new products and processes (Mehmood, Alzoubi & Ahmed, 2019). Additionally, entrepreneurial intention can be defined as the cognitive model of the actions that individuals tend to do either to start new businesses or

add value to the current ones. People start new businesses when they have an intention, not due to certain reflexes (Krueger, Reilly & Carsrud, 2000). It is shaped by various factors which can be classified as individual and contextual domains (Bird, 1988). The individual domain provides an analysis of demographics, personal characteristics, individual skills and prior knowledge, individual network, and social ties. The contextual domain includes environmental support, environmental influences, and organizational factors.

In addition, the intention for entrepreneurship is determined by factors such as family environment, self–concept, motivation for entrepreneurship, and the courage to take risks. According to Shapero and Sokol (1982), family plays a significant impact in determining entrepreneurial intention. Through the socialization process, entrepreneurial intentions grow. Children will be supported, guided, and encouraged in their future lives by their family environment and all aspects of it, such as how parents educate their children, family relationships, the state of the family's home, its financial situation, their parents' understanding, and their cultural background. Self-concept includes the idea that a person has of himself as a moral, spiritual, and social entity. The self–concept is perceived as a potential influencer in terms of entrepreneurial intention. Entrepreneurship motivation includes the purpose of starting a business and it represents the encouragement to work hard. The courage to take risks is considered the most important factor in terms of entrepreneurship. The entrepreneurs will find it challenging to get started. By assessing the risk's magnitude, the entrepreneur will not be scared to take chances. In addition, the more entrepreneurs believe in their abilities, the more they think they have the power to affect the outcomes and decisions, and the more willing they are to take risks that others would view as dangerous (Herdjiono et al., 2017).

Sookhtanlou (2018) states that the environment and the educational program for starting a business were key variables. Moreover, Yao, Wu and Long (2016) found that university students' perceived social environment and economic environment have a positive influence on their entrepreneurial tendency. Yukongdi and Lopa (2017) considered the environment for starting a business and educational program as suppressor variables and claimed that personality factors had a higher impact in terms of entrepreneurial intention. Turker and Selcuk (2009) showed that educational and structural support factors affect the entrepreneurial intention of students. Another study done by Peng, Lu and Kang (2013) showed that the perceived subjective norm of university students has a significantly positive influence on their entrepreneurial attitude and entrepreneurial self-efficacy while all these factors influence their entrepreneurial intentions significantly. Belas et al. (2017) investigated the relationship between social and economic factors in students' inclination toward entrepreneurship. Findings showed that the most negative answers with dissension of the respondents belong to the high-quality of the state of legal conditions for doing business, convenience and the appropriateness of business environment to establish a business, risk-resistance of the business environment enabling to start a business, high-quality state of university education, the possibility of career growth and interesting job opportunities due to doing business, lack of time of the businessperson for the family, and finally, creation of a new business in case nothing expected happens.

There are many studies on the related entrepreneurship factors. Maysami and Ziemnowicz (2007) took into consideration the factors that seemed to be more prevalent in the psychology of entrepreneurs. The factors fall into six different categories: creativity, locus of control, risk-taking, need for achievement, determination, and self-efficacy. Arasteh et al. (2012) focused mainly on eight crucial dimensions such as risk-taking, control, achievement, clarity of thought, pragmatism, tolerance for uncertainty, dreaming, and challenge. According to Zincirkiran the "Entrepreneurship Scale" created by Yilmaz and Sunbul (2009) can be considered reliable. In addition, other factors such as self-confidence, benefiting from an opportunity, innovativeness, control-oriented, will succeed, risk-bearing, and decisiveness have been added. Furthermore, Eyel, Kaplan and Unkaya (2020) focused on factors such

as utilizing opportunities, entrepreneurship, innovativeness, uncertainty avoidance, openness, self-confidence, determination, risk-taking, and individual power against external factors. Rubino and Freshman (2005) claimed that eight competency clusters such as making decisions, tolerance of ambiguity, internal locus of control, strategic thinking, risk-taking, confidence building, communicating ideas, and motivating team members. Sahin, Ocak and Gider (2019) in their study focused on various factors that influence entrepreneurial intentions, including lifestyle, childhood, family environment, education, age, work experience, and support networks.

As seen above, the intentions of entrepreneurship have been handled differently by different researchers. In this study, the intentions of entrepreneurship are examined under four main headings as leadership, innovation, productivity, and responsibility. Leadership is the capacity to use communication to work toward interpersonal influence in the direction of goal achievement. Entrepreneurs should act as group leaders by guiding, motivating, encouraging, helping, and directing the group members to establish a unity of action, efforts, and purpose. Furthermore, successful entrepreneurs possess the qualities of innovators. They continually work to introduce new products, and new production techniques, develop new markets, and reorganize the business. Additionally, an entrepreneur frequently manages by concentrating on the final product rather than the journey itself. Entrepreneurs can work for extended periods while also resolving multiple challenging problems (Varma, n.d.).

Gender differences in entrepreneurship intentions.

Nowadays, the concepts of entrepreneurship have come to the fore all over the world to ensure individual and social welfare and increase the quality of life (Turan, Nurten & Aydın, 2017) and researchers (as seen above) have focused on the last years.

Studies investigated the demographic characteristics (i.e. age, education level, gender) and other key factors including culturally based ideas and behavior. The conclusions related to gender and entrepreneurship vary among different researchers. Eddleston and Powell's (2008) findings supported the view that entrepreneurship is a gendered process and that the incorporation of a feminine perspective into entrepreneurial theories and research is needed. Studies (Crant, 1996; Wang & Wong, 2004; Yao, Wu & Long, 2016) found that gender had a great impact on the entrepreneurial tendency.

The findings about gender differences related to entrepreneurial intentions have been inconsistent. Arasteh et al. (2012) claimed that female students tend to have a larger value for clearness of thought than male students. Moreover, Sookhtanlou (2018) aimed to find out the gender differences that have an impact on entrepreneurial tendency. Although female students tend to be more motivated compared to male students, male students have a higher tendency to start a business. The need for achievement, risk-taking tendency, and job security have a great impact on entrepreneurial intention. In terms of gender differences, job autonomy, and job stability were important predictors for women but the need for achievement and risk-taking inclination resulted in being major predictors for males. Moreover, Sahin, Ocak and Gider (2019) found a significant difference in the dimensions of innovation, risk, and tolerance to uncertainty by gender. Although women's participation in entrepreneurship is considerably lower than men's in almost all societies (Díaz-García & Jiménez-Moreno, 2010; Gupta, Goktan & Gunay, 2014; Zhang, Duysters & Cloodt, 2014; Rubio-Bañón & Esteban-Lloret, 2016; Nowiński, et al, 2019; Estelami, 2020), women play an important role in entrepreneurship (Wilson, Kickul & Marlino, 2007; Rubio-Bañón & Esteban-Lloret, 2016). They contribute to the creation of services that improve the living conditions of the whole society, they create positive effects on local economies (De Vita, Mari, & Poggesi, 2014).

On the other hand, the study done by Xiangyu, Yuan and Yun (2017) revealed that men have a higher tendency to be part of entrepreneurship compared to women. Another study by Gure (2017) in

his study found that male students are more tended to be entrepreneurs. As part of his research, Gure (2017) argued that women tend to feel weak, and indecisive when it comes to taking risks and have a lack of self-confidence. Due to the patriarchal belief, that to help other family members, women must sacrifice or conceal many of their needs. Men are perceived as more independent and empowered compared to women, which has helped men in developing specialized entrepreneurial intentions more effectively. According to Yukongdi and Lopa (2017), even though men show stronger risk-taking behavior and self-efficacy, they have a lower need for entrepreneurial education compared to women. Wilson et al. (2009) found that males in both samples had higher entrepreneurial self-efficacy and higher entrepreneurial intentions than females did. Subsequently, Malach-Pines and Schwartz (2008) revealed that men are considered more suitable to start a business compared to women.

Finally, studies (Malach-Pines & Schwartz, 2008; Ozturk, Koksal & Kırac, 2014; Santos, Roomi & Liñán, 2016) found that there are no gender differences in entrepreneurial backgrounds. Santos, Roomi and Liñán (2016) studied the interplay between gender differences and the social environment in the formation of entrepreneurial intentions in different European regions. The results show that the formation of entrepreneurial intentions is similar for men and women. At the same time, men consistently exhibit more favorable intentions than women do. Öztürk, Köksal and Kıraç (2014) studied the development of an entrepreneurship scale for students in the health management department. In the present research, no significant differences across genders were detected. This is considered to be caused by the fact that individuals in the sample are in equal educational settings.

These differences can be explained by the Social Role Theory. Eagly (2013) reveals that gender-based stereotypical behaviors result from different male and female role expectations and that the difference between these gender stereotypes and actual gender differences is not as large as is often believed (Eagly, 2013). Specifically, social customs put women in the home, doing housework and caring for children and the elderly, while men are responsible to work and bring home money to support the family (Rubio-Bañón & Esteban-Lloret, 2016). Discrimination toward female entrepreneurs takes two forms: (a) the less favorable evaluation of females' potential in the entrepreneurship field, and (b) the less favorable evaluation of females' actual entrepreneurial behaviors (cited Xie & Wu, 2021). At the core of social role theory lie the expectations and roles shaped by social norms for an ideal man and woman.

The fact that men work intensively in fields that will bring more income, such as engineering, while women work in areas that will bring less income, such as housework related to their traditional identity, cause economic gender inequalities. Earning money and providing for the household has been defined as a traditional and environmentally male role (Ochsenfeld, 2014). It has been stated that men in roles in society are reliable, capable, and can take risks in entrepreneurship, but this role is questioned in women, their risk aversion is high, and their desire to start and manage a business is low (Malmström, Johansson & Wincent, 2017). From this evaluation, there are mixed findings about entrepreneurial intentions and gender-related issues. Although there are many studies on entrepreneurship preferences and gender in the literature, there are limited studies on healthcare management students in this area in Türkiye. Specifically, the study will test the following hypotheses.

Table 1. *Hypothesis*

Hypothesis	Description	Focus Area
H1a	Male students have a higher level of entrepreneurial intentions than female students concerning **Leadership**.	Leadership
H1b	Male students have a higher level of entrepreneurial intentions than female students concerning **Innovation**.	Innovation

H1c	Male students have a higher level of entrepreneurial intentions than female students concerning **Productivity**.	Productivity
H1d	Male students have a higher level of entrepreneurial intentions than female students concerning **Responsibility**.	Responsibility

Methodology

An entrepreneurship questionnaire determined students' entrepreneurial intentions concerning gender variables. The data were collected from AHBV University healthcare management students in Ankara, Türkiye. The study used proportional stratified random sampling[4], a technique used in probability sampling which ensures that specific groups part of a certain population are represented in a proportional way; based on the number of healthcare management students. There are 16,823 registered students in state universities, 1,381 students in private universities, and 57,923 students in open education faculties. The total number of healthcare management students is 75,551 (Yükseköğretim Kurulu, 2022). The questionnaire was applied online in the study. The survey participants were asked to rate their agreement with each statement on a five-point Likert scale ranging from "I do not agree at all" (1) to "I agree" (5).

Some participants did not fully complete the online survey. Since the specified amount of participants has been reached, 28 of the online surveys were eliminated. As a result of the process of collecting data, the research was conducted with 471 sample sizes within ten days in March 2022. 287 usable questionnaires were generated which provided a response rate of almost 60.9 %. This sampling scheme also met the acceptable level of sample size that was suggested for the study.

The survey questionnaire consisted of two parts. The first part of the survey included some statements about the characteristics of students in the healthcare management program. The second part of the survey covered questions about students' entrepreneurial intentions. Entrepreneurial intentions were measured by 51 –items developed by Ozturk, Koksal and Kırac (2014). The results were measured with a commonly used scale of entrepreneurial tendency with four assumed factors: leadership (9 items), innovation (13 items), productivity (10 items), and responsibility (19 items). The data analysis of the study consisted of three steps. First, a descriptive analysis of the characteristics of healthcare management students was done. In the second step, independent T-tests were used to examine gender differences regarding entrepreneurial tendency. Finally, multivariate analysis of variance and covariance (MANOVA and MANCOVA) were employed to test 'true' gender differences while controlling for other variables such as age, income level, education level, employment status, and family's own business, mother's work, and the entrepreneurial aspect.

Findings

The participants were 287 students enrolled in the healthcare management program in Türkiye. Male and female participants accounted for 44.3% and 55.7% of the sample, respectively. The respondents were mainly 24 and over, had monthly family incomes of between 8501-17000 Turkish Lira, and 84.3 college degrees. It was determined that the vast majority of the family (65.9%) owned their own business, were involved in working life (68.3%) and saw themselves as entrepreneurs (Table 2.).

Table 2. *Demographic characteristics of respondents (n=287)*

Variables	**F**	**%**
Gender		
Male	127	44.3
Female	160	55.7

[4] Formula: *Proportionate stratified random sample = (Sample size / Population size) × Stratum size*

Age		
20 and less	92	32.1
21-23	110	28.4
24 and over	85	39.5
Family income		
8.500 and less	39	13.5
8.501-17.000	239	83.3
17.001 and over	9	3.5
Education level		
Doctorate degree	17	5.9
Master's degree	28	9.8
Undergraduate degree	242	84.3
Own business in the family		
Yes	189	65.9
No	98	34.1
Mother's working status		
Working	99	34.5
Not working	91	31.7
Retired	97	33.8
Previous or current employment status		
Yes	136	47.4
No	151	52.6
Seeing yourself as an entrepreneur		
Yes	190	66.2
No	5	1.7
Partially	92	32.1

It can be stated that the values for the normal distribution should be between -1.5 and +1.5 (Tabachnick & Fidel, 2013). In this context, it was set that the analysis showed a normal distribution (Skewness = -0.096; Kurtosis = 0.658).

Entrepreneurship scale factor analysis results from KMO = 0.924; $p<0.001$ is classified in the excellent category because this value is greater than 0.90. The result of Barlett's test was found as $x2 (1275) = 5105.60$ $p <0.05$. The scale has 4 sub-factors; leadership (KMO = 0.82; $x2(36) = 402.86$, $p<0.05$), innovativeness (KMO = 0.89; $x2(78) = 906.25$, $p<0.05$), productivity (KMO=0.87; $x2(45) = 538.39$, $p <0.05$), responsibility (KMO=0.89; $x2(171) = 1316.41$, $p<0.05$).

According to the t-test result in gender differences in entrepreneurial intentions (Table 2); the "Leadership, Innovation, Productivity, Responsibility" factors as part of the entrepreneurial tendency scale were statistically significant at a 0.05 probability level between female and male students. Males reported higher levels of responsibility (Male 4.593, Female 4.483, $p<0.05$), leadership (Male 4.577, Female 4.448, $p<0.05$), Innovation (Male 4.591, Female 4.441, $p<0.05$), Productivity (Male 4.592, Female 4.451, $p<0.05$) than female students did. These findings revealed that significant gender differences exist in healthcare students' entrepreneurial intentions. However, little research was available with which to compare or confirm this particular finding in the literature.

The entrepreneurship score average was set as 230.40 ± 13.64. In the scoring, values between 211 and 255 are stated as a very high level of entrepreneurship (Ozturk, Koksal & Kırac, (2014). The lowest score was 191, and the highest was 255. While the mean total score for men (n=127) was 234.08 ± 11.20, for women it was 227.48 ± 14.68 (n=160). As a result of the independent sample T-test, entrepreneurship scores of male students were significantly higher than female students ($T=4.320$; $p<0.001$).

Table 3. *Gender differences in entrepreneurial intentions*

Entrepreneurial intentions factors	Male (x̄, s)	Female (x̄,s)	*t value*	Sig.
Responsibility	4.593±0.232	4.483±0.297	3.502	0.001*
Leadership	4.577±0.259	4.448±0.317	3.816	0.001*
Innovation	4.591±0.257	4.441±0.326	4.347	0.001*
Productivity	4.592±0.255	4.451±0.330	4.091	0.001*

A one-way between-groups multivariate analysis of variance (MANOVA) was performed to investigate gender differences in entrepreneurial intentions. Gender was used as an independent variable. "Leadership, Innovation, Productivity, Responsibility" factors were used as dependent variables. There was a statistically significant difference between males and females on the combined effects of four entrepreneurship intentions factors as dependent variables (F= 21663.436 p=0.001; Wilk's Lambda=0.003; partial eta squared=0.997). An inspection of the mean scores indicated that males reported slightly higher levels for Responsibility (M= 4.593, SD=0.2320) than females (M=4.484, SD=0.2975); for Leadership (M=4.577, SD=0.2539) than females (M=4.449, SD=0.3179); innovation (M= 4.592, SD=0.2576) than females (M=4.442, SD=0.3267); for Productivity (M= 4.593, SD=0.2558) than females (M=4.451, SD=0.3308).

MANCOVA was employed to test the gender differences while controlling for other variables, such as age, income level, education level, employment status, family business, mother's work, and the entrepreneurial aspect. This analysis reveals that gender differences in entrepreneurial intentions (i.e. multivariate main effect) existed after controlling for these covariates (Table 3). After controlling for age and entrepreneurial aspect, the mean score for leadership", "Innovation", "Productivity", and "Responsibility" show a significant difference between male and female students. This means that male students reported higher entrepreneurial intentions with "this four-factor. The mean score of the 'Leadership" factor became a significant difference after controlling for income level. This means that in terms of leadership as part of the four dimensions of entrepreneurial intentions, there are significant variations in the job satisfaction scores of hotel students depending on their gender. After controlling for the educational level, the mean score of the "Leadership" factor shows a significant change between male and female respondents. That is, male students have greater intentions than female students.

Table 4. *Gender differences in entrepreneurial intentions when controlling for other characteristics*

Item controlled	Responsibility (F,p)	Leadership (F,p)	Innovation (F,p)	Productivity (F,p)
Age	9.088 (0.003)*	5.359 (0.021) *	9.579 (0.002) *	5.610 (0.019) *
Income level	1.618 (0.204)	5.574 (0.019) *	3.806 (0.052)	0.184 (0.668)
Education level	2.484 (0.116)	0.143 (0.705)	5.550 (0.019) *	1.723 (0.190)
Employment status	1.226 (0.269)	0.010 (0.922)	0.161 (0.689)	1.471 (0.226)
Family's bus.	0.849 (0.358)	0.002 (0.961)	0.029 (0.866)	0.024 (0.877)
Mother's work	0.133 (0.716)	0.554 (0.457)	0.007 (0.932)	0.280 (0.597)
Entrepreneurial asp.	15.604 (0.001) *	10.597 (0.001) *	7.660 (0.006) *	19.696 (0.001) *

Conclusion

Gender role is a cultural orientation or attribute conditioned by a traditional social system in which men are expected to behave as men (Masculine) and women are expected to think and act as women (Feminine) (Mungai & Ogot, 2012). Female entrepreneurship activities have been of great interest to policymakers who have recognized the potential of women entrepreneurs for economic development and job creation. Although the gender gap between entrepreneurs has narrowed over the years, the proportion of women entrepreneurs interested in entrepreneurial capital activities is relatively low in most places (Chakraborty, 2020). Gender roles create barriers to participation in business life. Gender stereotypes formed through long decades (women's main role is to be wife and mother) are

treated as one of the most important obstacles preventing women to start their businesses (Startienė & Remeikienė, 2008).

This study reviewed entrepreneurial intention differences between male and female students in Türkiye. Although the study utilized students in Türkiye, the findings and inferences made in the study have both global and regional implications for healthcare organizations. Using an independent t-test, significant gender differences were evidenced in entrepreneurial intentions. Male students were significantly higher than female students parts on: "Leadership, Innovation, Productivity, Responsibility". Gender stereotypes were considered one of the most significant barriers to women starting their businesses, particularly in developing countries (Startienė & Remeikienė, 2008). According to the 2018-2019 Global Entrepreneurship Monitoring Report, Türkiye ranks 15th among 48 countries in terms of total early-stage entrepreneurship activity, but the number of women who are entrepreneurs is less than half of the men (Sancar, 2021). Some of the challenges faced by women in terms of entrepreneurship are the thoughts that they can act impetuously in starting a business and that they cannot be determined in this process (Malmström, Johansson & Wincent, 2017).

This finding was also consistent with the MANOVA analysis in which the independent variable was gender and the four delineated dimensions were dependent variables. There was a statistically significant difference between males and females on the combined effects of four entrepreneurship intentions factors as dependent variables. Findings regarding gender differences in entrepreneurship (particularly, that males are more likely than females to be entrepreneurs) have been explained with differences in men's and women's risk preferences and information processing strategies, work value differences and psychological characteristics, social norms, general expectations and general impression of the society towards gender (Crant, 1996; Díaz-García & Jiménez-Moreno, 2010; Sookhtanlou, 2018;Estelami, 2020). Moreover, gender disparities are influenced by cultural, organizational, economic, demographic, psychological, technical, institutional, and political factors. Since gender roles are closely linked to values, traditions, religion, and socio-economic factors, they vary between cultures (Khoury & Fayad, 2013) and reflect the structure of the society in which they live. Males and females assume different roles in working life, and their positions are generally separated by gender (Blackstone, 2003). According to the Gem report, in the Latin America and Caribbean country group, gender differences are relatively small. In high-income countries, men are about twice as likely as women to be involved in early-stage entrepreneurial activity. For Eastern Europe and Central Asia countries, the gender gap is even more pronounced: men are 2.3 times as likely to be early-stage entrepreneurs as women (Gem). Mungai and Ogot (2012) investigated how diverse cultural factors influence female participation in entrepreneurship in a multi-ethnic country. The study found that compared to gender, ethnic and cultural influences have a stronger effect on women's tendency for entrepreneurship. Women in Africa are expected to be mothers and wives and this shapes girls' overall expectations for future labor force involvement and career trajectories, resulting in lower participation in business activities.

MANCOVA was used to test the gender differences while controlling variables, such as age, income level, education level, employment status, family's own business, mother's work, and the entrepreneurial aspect. This analysis reveals that gender differences in entrepreneurial intentions (i.e. multivariate main effect) existed after controlling for these covariates; males have greater intentions than females.

From a theoretical implication perspective, the main contribution of this research to the existing knowledge is the identification of gender-specific drivers of entrepreneurial intentions. This study's results can be beneficial for many health management students, especially females. To increase students' entrepreneurial intentions, a healthy education and working environment should be provided. Moreover, students who are candidates for the healthcare sector, have a large number of areas where

entrepreneurship activities can be carried out within the health industry. Therefore, both male and female students need to be supported in a socio-cultural sense to increase their self-confidence in becoming entrepreneurs (Sahin, Ocak & Gider, 2019). Future research that extends the current study is warranted. As mentioned above, country cultures vary around the globe in their levels of masculinity/femininity. According to Hofstede (1980), Türkiye is in the middle range in terms of masculinity/femininity (the accepted gender roles in society). Moreover, Edström et al. (2019) discuss how perceptions of masculinity in Turkey have undergone significant transitions among certain social groups, with some moving toward less authoritarian ideals. However, many men still cling to traditional male privileges. This shift has had notable effects on gender dynamics and economic roles, illustrating the nuanced evolution of masculinity and femininity within Turkish society.

Statement of Research and Publication Ethics

We hereby declare that this research has been conducted and the publication written following ethical guidelines. All research methods, including data collection, analysis, and reporting, have followed ethical standards.

Authors' Contribution Rate

Lauro AGOLLİ – Literature Review, Data Analysis, General Contribution

Mert HOROZ – Data Collection, Analysis, General Contribution

Derya SİVUK – Data Analysis, Literature Review, General Contribution

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Statement of Interest

The authors have no conflicts of interest to declare.

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