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INTERNATIONAL ACADEMIC RESEARCH AND STUDIES IN

SOCIAL SCIENCES AND HUMANITIES

EDITORS

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Chapter 1

DIFFERENT PLACE, DIFFERENT GROUND, COMMON VOICE: THE STRUGGLE OF WOMEN IN ENGLAND AND THE OTTOMAN EMPIRE IN THE 19TH CENTURY

Melek KAYMAZ MERT[1]

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1.Introduction

The 19th century witnessed very important developments all over the world. The social structure was profoundly impacted by developments like the industrial revolution, urbanization, mass education, and expanded access to information as a result of the printing press and the press. These changes opened the door for women to demand their rights and increased the visibility of women in public and in manufacturing processes. In the same time frame, women began to demand equality in fields like education, employment, and political engagement by the emergence of liberal ideas.

After the completion of England's industrial revolution, the rise of the bourgeoisie, constitutional monarchy, and the discussion of political reforms, middle-class and upper-class women started to participate in education and intellectual production. Although women had little access to political rights, feminist ideas started to emerge within the context of debates about individual liberties and citizenship (Levy, 1987; Gullickson, 2008; Knight, 2018; Stone,1972). On the other hand, innovations like *Tanzimat (*1839), *Islahat* (1856) and *Meşrutiyet* (Constitutional Monarchy ,1876) brought about administrative and legal reforms in the Ottoman Empire, which was a monarchy for a long time. Press life was restored, and educational institutions in the Western manner were established (Sancar,2004; Çakır,1994; Kurnaz,1991). These changes also made women more visible; through women's journals, books, and articles, women's issues started to be discussed in public, but gender roles were mostly established within established frameworks, and women had very little access to political rights (Altınbaş, 2014: 114).

The purpose of this study is to highlight the similarities and differences between the Ottoman Empire and England throughout the 19th century. Examined in this context were women's political and legal rights, educational possibilities, and the characteristics of women's movements in both regions. The fact that these issues in the two countries have never been compared previously gives a unique perspective to the research and is significant since it shows that, despite their stark cultural differences, women's issues and demands are similar. In addition to offering a historical evaluation, this comparison seeks to initiate an intellectual discussion about the ways in which local factors have influenced women. In this case, the study used a qualitative and comparative research methodology and collected data from primary and secondary academic sources, women's publications, legal texts, and the writings of women authors of the time.

2.Legal Rights and Educational Opportunities of Women in England in 19th Century

In 19th century England, women lacked many legal rights. Law (= patriarchal law) viewed marriage as the end of a woman's independent existence, notwithstanding the teachings of parents, clerics, and patriarchal culture that marriage was the aim of life. Courts let the home to become a jail where her husband could forcefully confine her, despite conduct guides encouraging the woman to make it a sacrosanct haven from the worries of the outside world (Rasulovna, 2022:728). Men perceived women as emotionally unstable and incapable of making logical decisions because of their reproductive system. Many were treated no better than slaves once they got married (Stevenson Moessner, 1994).

Before 1882, a woman essentially vanished from the legal system after she got married. She and her spouse united on their wedding day, and from that point on, everything she did was directed by him. (Rasulovna, 2022:729). In addition to controlling all of her belongings, he also had authority over her physical form. It was legal for a husband to beat and even rape his wife without fear of legal repercussions. Only in 1891 did a High Court decision forbid a husband from putting his wife in jail so he could exercise his marital rights (Conway, 1972:164).

Married women were unable to form a will, start a lawsuit, or sign a lease. The family's money was totally under the husband's authority, and her earnings, personal belongings, and even children were all his. It was quite tough to get a separation and divorce if he mistreated her. A spouse was still in charge of his wife's belongings even after he left her. The English lawyer William Blackstone famously defined a married woman's legal position in 1765 as follows:

In our legal system, a woman is referred to as a feme covert because, upon marriage, her existence is suspended, or at the very least, incorporated or consolidated into that of her husband, under whose protection, wing, or cover she executes all of her activities. (Cited in Griffith, 1985).

Seeing how harsh all these conditions were for women, feminists such as Caroline Norton started campaigns to change the laws and achieved significant success and, in this particular context, a number of new laws were passed in the 1800s:

The Infants and Child Custody Bill of 1839 allowed women to request custody of children under the age of seven provided they had not been found guilty of adultery, but judges still favored the fathers. The Custody Act of 1873 gave the court the authority to grant mothers custody of children until they

become sixteen and eliminated rules that prevented women with adultery convictions from requesting custody. The Custody of Infants Act of 1886 gave mothers guardianship in the event of a father's death, but the spouse kept the power to make decisions about the children's upbringing, education, and religion as long as he was alive (The National British Archive, 2025).

Famous feminists of the period continued to struggle for the legal rights. Elizabeth Cady Stanton presented to the New York legislature in 1854 and 1860, Barbara Bodichon impacted the Parliamentary debates in 1857, and Caroline Norton remained at the forefront of this endeavor with a letter to the Queen (Stone ,1972). With their endeavor, numerous new laws were passed:

Under the Matrimonial Causes Act of 1857, women who were divorced or separated had the same rights as single women to engage into contracts, inherit or bequest their own property, and sue or be sued. It allowed a husband to file for divorce from his wife for adultery but required the wife to establish both adultery and another crime, including cruelty, bigamy, rape, bestiality, incest, or desertion for more than two years. The Property Act of 1870 for Married Women permitted women to inherit minor amounts of money and personal property, but only their earnings. The spouse owned everything else, whether it was acquired before or after marriage. According to the Matrimonial Causes Act of 1884, as long as a wife who has been abandoned by an adulterous spouse can file for divorce right away rather than waiting two years (The National British Archive, 2025).

Despite some encouraging advancements, women in England would not receive the right to vote until 1918, and even then, it was an unexpected one. With the passage of the Representation of the People Act in 1918, women over 30 who satisfied certain property requirements were granted the right to vote (Davis, 1999:12). Despite meeting this criterion, 8.5 million women only made up roughly two-thirds of the UK's overall women population. The same Act gave almost all men over 21 the right to vote and eliminated property and other restrictions on men. In addition, male military personnel were eligible to vote at the age of 19. The number of voters rose from eight to twenty-one million, but the gap between men and women remained enormous. Women did not obtain the same voting rights as men until the Equal Franchise Act of 1928, which allowed women over 21 to vote. (UK Parliament, 2025).

When considering women's educational possibilities in England during the 1800s, it is evident that they were scarce. Girls were educated in the UK in the 1800s, but only at a very simple level. Mothers taught reading, writing, math, and skills like sewing to middle-class girls. Wealthier people either sent their daughters to a boarding school that focused on 'girls' subjects' like writing, music, and needlework, or they hired a female tutor (Burstyn, 1977:

11). Many children from lower-income families attended church-run schools, which were established with support from groups like the National Society for Promoting the Education of the Poor. Children also received a basic education at factories and workhouses, which were mandated by the Factory Acts (Dyhouse, 1976: 41).

The majority of schools in Britain were founded by wealthy donors until the government started offering education in 1870. The Education Act of 1880 mandated that all children between the ages of five and ten attend school. However, many parents chose to put their kids to work instead of school because most families couldn't afford it. The age at which children might leave school was raised to 12 in 1899 after school fees were eliminated in 1891. This age would climb to 14 in 1918, 15 in 1948, and 16 in 1973 (Burstyn, 1977: 15).

Women had been dissatisfied with the little education they could access by the turn of the 19th century, but the mid-to-late 1800s saw the establishment of numerous boarding schools for girls, and the 1860s and 1970s saw the founding of the first women's colleges at Cambridge and Oxford University. They were permitted to attend universities during this time, although they were only granted 'Certificates of Proficiency' rather than degrees. The University of London offered the first full degrees to women in 1878; Oxford and Cambridge would not issue degrees to women until 1920 and 1948, respectively (Pedersen, 1975:135). Furthermore, The Mechanics' Institute in London was established in 1823 to offer working men educational lectures that they could attend after work; by 1830, women were also welcome. While ladies received a less academic education at home or at other schools, boarding schools had long been available to teach boys whose parents could afford them. Now, the girls' equivalents of those schools, such as Roedean School in 1885 and Cheltenham Ladies' College in 1853, were starting to emerge (Jurvis, 2018).

Although new educational opportunities for women emerged in the 1800s, especially in terms of higher education, they were quite limited, but these developments paved the way for other important developments later on.

3.Women's Legal Rights and Education in the Ottoman Empire During the 1800s

The Ottoman Empire had significant political changes in the 19th century. Women were given certain privileges with the *Tanzimat* and *Islahat* Edicts although it is evident that they were already free, particularly with regard to property. In this case, it is crucial to emphasize that marriage has no effect on a woman's legal capacity.

The great majority of the Ottoman State's application of Islamic law was in the area of family law, and consequently, marriage and divorce. A crucial

question concerning the marriage contract was whether a woman with the legal competence to marry could do so independently without her family's consent. In the Ottoman State, anyone who had achieved puberty and possessed the capacity for discretion, man or woman, was allowed to get married without their family's approval (Akyılmaz, 2007: 471). Besides, after marriage, it is evident that the male is granted superiority when the rights and responsibilities of men and women in a marriage are analyzed. The lady was required to comply with her husband's reasonable and lawful requirements. The husband has the authority to decide who lives with him, to forbid the lady from leaving the house, and to invite guests (Yürüt, 2017:371).

Despite the Ottoman family structure's patriarchy, it was noted that women's property rights were shielded from their husbands and any potential adversaries. Ottoman law recognized the separation of property system. A woman was not required to give her spouse her assets; she was free to dispose of them when she considered proper and take any legal action she desired without her husband's consent (Akyılmaz, 2007:475).

On the other hand, polygamy was a significant issue impacting women. State regulations in the Ottoman Empire allowed men to marry multiple women as long as they guaranteed equality between wifes. Polygamy, however, was not common in the Ottoman Empire, according to numerous research. It was primarily observed among the wealthy and ruling class.

According to the Ottoman law, divorce, also known as *talaq*, is the dissolution of a marriage by the man's own volition. In addition, there are several ways to separate in Ottoman law, including judicial divorce, *tafviz-i talak*, which gives the woman the power to divorce, and divorce by *muhalaa*, also known as consensual divorce. Nonetheless, the most popular divorce procedure involves a man unilaterally declaring his decision to divorce his wife. In spite of this, we may state that during the Ottoman Empire, divorce was legal for women. Marriage contracts were created in the Ottoman Empire to shield women from becoming victims of husband abandonment.

As part of modernization efforts in the 19th century, some legal amendments were implemented to improve the situation for women. For instance, *Arazi Kanunnamesi*, which was passed in 1858, was an attempt to address the problem of inheritance, which disadvantaged women (Inalcık, 1978). Daughters now had the same inheritance rights as sons, whereas formerly they only received a small portion of the family's wealth. With *Hukuk-ı Aile Kararnamesi* in 1871, marriage contracts were made in front of an official officer, the marriage age was set at 18 for men and 17 for women, and forced marriages were deemed invalid. The notion that a woman might specify to her husband that he would only have one wife throughout the marriage was adopted by the

decree's drafters as a partial response to the demands within the framework of Islamic law (Inalcık, 1964).

Prior to the *Tanzimat*, girls in the Ottoman Empire could only gain from attending primary schools; higher education was not necessary. With the help of their families, daughters of intellectuals and bureaucrats could enroll in private lessons (Kurnaz, 1991:32). With the *Tanzimat*, the effect of Westernization showed itself in the field of education as in every field. With the 1869 *Maarif-i Umumiye Nizamnâmesi*, it was decided to open a teacher's school for girls and to increase the number of middle schools, and a midwifery school was opened considering the health of women. With these regulations carried out by the state, efforts were made to develop women culturally.

In addition, in 1843, the School of Medicine began teaching midwifery one day a week. In 1845, it awarded its first women graduates. In Istanbul, a secondary school for girls was initially established in 1859. Families were urged to enrol their daughters in these educational institutions. In 1865, the first Girls' Industrial School started. Training staff to meet the army's and the state's fabric and sewing needs was the goal. In order to prepare women instructors for the education of girls, schools known as *Darül Muallimat* were established in 1869. Women who aspired to study at this institution to become teachers were also given scholarship (Ortaylı, 2010). Women began enrolling in universities in 1912. However, it wasn't until the fall of the monarchy-ruled Ottoman Empire and the establishment of the Republic that women were granted political rights.

4. The Features of the Nineteenth-Century English Women's Movements

In England, by the 1850s, the first feminist movement was centred on equal rights in the workplace, in education, and in elections, such as the right women vote. Queen Victoria, however, was not in favour of the feminist cause. 'God created men and women differently so then let them remain each in their own position,' she said, calling feminism a 'wicked folly.' By the early decades of the twentieth century, things heated up, but this campaign did not result in any notable legal victories for women (Ailieen,1965:45).

Discussions concerning the nature and position of women were sparked by a number of the historical shifts that defined the Victorian era. Victoria dubbed this 'The Woman Question.' This inquiry covers group discussions regarding the physiological aspect, the political ability, moral fiber, and a woman's position in society. From the Revolution of 1848 to the disruption of industrial transformation, the issue of women's status in society and politics was particularly pressing during times of conflict. However, the issue of women was also discussed at the level of daily existence. Mary Wollstonecraft's

Vindication of the Rights of Woman and John Stuart Mill's *The Subjection of Women* are two notable examples of nineteenth-century liberal thought and enlightenment political philosophy that directly influenced the British suffrage campaign. Mary Wollstonecraft can be referred as the first feminist and the mother of feminism. Her sympathies were with the 1789 revolutionaries. She suggested introducing women to enlightened concepts. She believed that women were logical beings with the same capacity for intellectual achievement as men. She protested against French women's exclusion from citizen rights in her 1792 publication, *Vindications of the Rights of Women*, which was addressed to Talleyrand (Wollstonecraft, 1792). Because it promoted gender equality, it is a significant effort. She made fun of the stereotypes that women are weak, endearing, and stupid. She believed that women were taught to be 'slavishly dependent.' She chastised women for being sentimental and stupid. Children were educated by women, which is why education was so crucial. Before her suggestions were implemented, over a century passed. Her concepts were so ground-breaking that they generated a great deal of criticism (Taylor, 2003).

In 1869, John Stuart Mill released *The Subjection of Women*. He made use of the imagery of bondage and servitude. Mill supported votes for women by arguing for the social, economic, and political liberation of women and assuming that each person had interests that only they could represent. He petitioned Parliament to amend the Reform Act of 1867 to grant women the right to vote. The 1867 Reform Act's failure to grant women the right to vote and the partially successful push for secondary higher education both occurred in the 1860s (Holton, 1986: 123).

The efforts of some intellectuals to ensure that women could obtain political and economic rights were initially partially met with response because the 'Angel in the House' was the popular Victorian concept of the ideal wife and mother. It was required of the lady to submit to her husband and be loyal to him. Passive, helpless, timid, charming, graceful in her attire, empathetic, selfless, devout, and most importantly, pure were the attributes of the angel. The early years of Victoria's reign saw the emergence of the woman question, which primarily benefited middle-class women. Discussions concerning gender relations proliferated and had an impact on national politics. The 1850s saw a change in emphasis on issues pertaining to the employment of middle-class women (Remy-Hébert, 2016:12).

In these circumstances, proponents of women's rights started to form groups across the nation. The National Society for Women's Suffrage (NUWS) was established in London. At the age of 19, Millicent Fawcett (1847–1929)

joined the executive committee of the London Society in 1867. The women who supported this organization and struggle became known as suffragists since Millicent didn't believe in violence. The NUWS had more than 100,000 members and 500 branches by the start of World War 1. Although men were permitted entry, the majority were notably middle-class women (Smith, 1996).

The more radical suffrage campaign spearheaded by the Pankhurst family was preceded by the NUWS. They carried out campaigns of arson and bombing. attacks on MPs' homes, train stations, and post offices using weapons, bombs, and the notion that women could only win votes by imitating men's aggressive behavior (Remy-Hébert, 2016:15). Most of the Pankhurst family was involved; Sylvia Pankhurst was imprisoned, force-fed, and publicly abused by Winston Churchill, while Christabel Pankhurst, Emmeline's eldest daughter, was imprisoned multiple times. The WSPU, of which Emmeline Pankhurst was a founding member, frequently used disruption and civil disobedience as tactics. Considering the October 1908 rush on Parliament, when 60,000 people were able to assemble and invade the building. They were very successful at drawing attention to the suffrage campaign because to tactics like these (Knight, 2018).

The NUWS was divided on a number of topics, such as how militant to be and how to approach the law. During World War I, they operated hospital units exclusively for women. Under Eleanor Rathbone's direction, the organization renamed itself the National Union of Societies for Equal Citizenship following the war. In an effort to follow the law, suffragists peacefully protested while conspicuously wearing their group colors, red, white, and green. Give women their rights. In a recently unveiled statue of herself in London, Millicent is seen holding up her most famous quote, 'Courage calls for courage everywhere.' It must have run in the family to succeed. Elizabeth Garrett Anderson, her older sister, became the first female doctor in Britain (The UK Parliament, 2025)

Many other women's organizations were founded during this period. The National Society for Women's Suffrage was established in Manchester. After serving as the Manchester Society's secretary, Lydia Becker (1827–1890) became a well-known advocate for women's education and suffrage. Also, The National Society for Women's Suffrage in Edinburgh was established. Pricilla Bright McLaren (1815–1906) served as the Edinburgh Society's first president. She was an active activist who backed Josephine Butler's opposition to the Contagious Diseases Acts. Members of the Manchester Society established the Central Committee of the National Society for Women's Suffrage to exert pressure on Members of Parliament in London. Disillusioned with the London Society's lack of effort, Millicent Fawcett joins the Central Committee in 1874 (Holton, 1986:127).

Despite all of these efforts, The Third Reform Bill excludes women but grants the right to vote to new working-class men, such as agricultural laborers, but women did not give up their rights. There was also a disagreement between women's organizations during this period, but fortunately all of the suffrage societies in England, Scotland, and Ireland are unified under the National Union of Women's Suffrage Societies (The UK Parliament, 2025).

Another important event was when Emily Wilding Davison flung herself in front of King George V's horse in the 1913. Davidson had a reputation for acting in a militant manner inside the WSPU; for instance, she had spent the night hidden in the Palace of Westminster. The fact that she was tragically killed by the King's horse for boarding a thoroughbred in what is thought to have been the name of suffrage solidifies her place in the annals of feminism (Gullickson, 2008: 461).

The first World War started the next year. Following the war, women over 30 who owned or resided in a home valued at more than £5 were granted the right to vote in 1918. In Australia, Finland, and New Zealand, women were now able to vote. Some believe that if the war hadn't started, women would have received their rights sooner. When women were able to obtain the full vote from 21 without regard to property restrictions in 1928, the right to vote was expanded. Sylvia Pankhurst persisted in advocating for social causes and a more robust communist society in the United Kingdom after winning the right to vote (Collette, 2013: 67).

In England, women's movements in the 19th century are more commonly known as suffragette movements because England was one of the nations most affected by the suffrage movement (Burton, 1997). Women battling for the right to vote in other nations were affected by its example, particularly in terms of their debate of tactics and range of actions (Adak, 2016).

5.The Characteristics of the Ottoman Women's Movement in the Nineteenth Century

When we consider the women movements in the Ottoman Empire in the 19th century, we can see that demands for citizenship, education, and the ability to vote were the most common during the Constitutional Era (1900s). Examining the movement's constituents reveals that it was a multi-identity movement, with women of Greek, Armenian, Circassian, Arab, Jewish, Kurdish, and other ethnic backgrounds participating. Each community's women's groups created their own associations and foundations, printed their own periodicals, and actively participated in the fight as women's movement subjects (Özdemir, 2017: 112).

The mental consciousness that criticized women's exclusion from the public sphere and their exposure to injustice in the legal, economic, and social fields emerged with the Constitutional Monarchy, and women began to defend feminism through organizations, periodicals, and newspapers, educated, middle-class women started talking about women's status in Ottoman society by focusing on the problems that most affected them. Discussions included a wide range of subjects, including dress codes, women's social isolation, polygamy, and the ability to divorce in favor of men. Along with criticizing women's role in the home, they also called for their inclusion in the workforce, in school, and in public and social life. But at the same time, several women simultaneously called for personal liberty and self-determination (Yaraman, 2001:67).

Works conducted prior to the Constitutional Monarchy era, in the 1800s, do exist, albeit they are uncommon. For example, The *Terakki* newspaper started publishing letters from women about the issues facing women in Ottoman society during the Tanzimat period. (Çalışkan, 2022: 320). It was stated in the letters bearing the name *Adile Hanım* that women's concerns were included with great social satisfaction, and in the letters bearing the name *Belkıs Hanım*, it was stated that women should have the same access to education as men. Published in 1895 for women's knowledge and opinions, the Women's Special Newspaper covered a wide range of topics and also provided instances of significant women role models, including Madam Curie. The publication featured pieces written by prominent women of the time, including *Fahrünnisa Hanım, Emine Semiye, Fatma Aliye, and Nigâr Hanım* (Şimşek, 2017: 346).

Women's publications were crucial to the Ottoman Empire's efforts to prioritize women's education, which were initiated with the Tanzimat. The goal of the articles was to educate women on subjects including education, marriage, employment, family, and fashion. The lives and works of women who had achieved recognition in fields like painting, theatre, and literature, as well as association programs and entertainment articles, foreign policy news, and information about women worldwide, were all included in the extremely rich content of Ottoman women's magazines. The slogans for women's rights that were at the height of their popularity in Europe and the USA had an impact on the women's publications of the time, which supported women's rights. They also attempted to apply these ideas in the Ottoman Empire (Doğan, 2012: 75).

In the Ottoman Empire, associations played a significant role in women's movements. After the Associations Act was passed in 1908, the number of these associations began to rise. Up until these dates, during the Constitutional Monarchy period, women's associations were founded to carry out humanitarian tasks. For instance, Emine Semiye served as president when the *Şevkat-i Nisvan* was established in 1898. The society's goals were to safeguard

orphans, assist impoverished women, and offer financial support (Şimşek, 2017: 348). For this reason, they hosted a variety of events and charity bazaars. Originally established in Thessaloniki, this community later expanded to Istanbul, Konya, Samsun, and Edirne under several names. During the Crimean War, the Committee for the Aid of the Wounded was one of the first organizations founded by Muslim women in the Ottoman Empire, and it was founded in 1876 to aid the injured who had been sent to Istanbul as a result of the conflict in Bosnia and Serbia. The wife of Mithat Pasha served as the association's chair. In order to assist the injured, non-Muslim women also founded a number of charity organizations during this time (Kaplan, 1998).

There was also an increase in the number of woman writers and poets during this period. *Zafer Hanım, Fatma Aliye Hanım, Fitnat Hanım, Leylâ Saz Hanım*, and *Nigar Hanım* are notable poets and authors from this era. Later, several of these women went on to fight for women's rights in politics and society. To give an example, *Fatma Aliye* emerged as an inspiration in the Ottoman Empire's modernization drive, which started in the 18th century and continued throughout the Republican Era. She struggled for women to benefit from the Tanzimat period's educational, administrative, and legal reforms in addition to the modernization that started in the 18th century to keep the empire from collapsing (Baylı, 2018, p.577). Because she was the first woman writer and the first to speak out on topics pertaining to women that had previously only been addressed by male writers, Fatma Aliye is significant to the history of Turkish women. Perhaps she had to endure some difficulties as a result of the difficulty of being the first in this regard. In 1889, the tenth year of their marriage, Fatma Aliye and her husband read the French novel *Volonte* (Will) by George Ohnet, and they thoroughly enjoyed it. The novel was translated by Fatma Aliye and was titled *Meram* (purpose, objective). She had it serialized in Ahmet Mithat Efendi's *Tercüman-ı Hakikat Newspaper* (February 25, 1890) after receiving approval from her husband and father. Because of the sexist mentality of the time, she went by the name *Bir Hanım (A Woman).* She shielded her father or spouse from social oppression in this way (Özkan, 2017: 180).

The Ottoman Empire saw a surge in the feminist movement following the establishment of the Constitutional Monarchy, particularly the Second Constitutional Monarchy, but women's movements raised awareness of women's problems throughout the 1800s, primarily through magazine articles. Later on, women began to demand political rights, thus those years were still too early to mention feminism (Koçak, 2020: 487). For instance, Ahmet Mithat, a well-known male author of the day, claimed that while women and men were not equals, it was nevertheless improper to keep women out of society. Touching on women's education, Ahmet Mithat said that women need to take care

of their families and that love alone is insufficient for a happy marriage. Only education can help women do this (Mithat, 1999).

Thus, it may be argued that discussing feminism in the Ottoman Empire throughout the 1800s was premature. However, the significant changes that occurred in the nation during these years made it possible for women's issues to be included on the agenda, and a number of previously undiscussed issues pertaining to women started to be brought up.

6.Conclusion

When the educational opportunities of women are compared, it can be seen that there were educational barriers for women in both of these countries. Only the daughters of wealthy families received home education from private tutors prior to the early 1800s. Only religious schools were able to educate the daughters of low-income families. Girls' right to education became a matter of discussion in both countries as a result of significant political, social, and economic upheavals brought about by the Industrial Revolution in England in the late 1800s and the *Tanzimat* and *Islahat* Edicts in the Ottoman Empire.

When we compare the legal rights of women, we see that in England, women legally became the property of their husbands when they got married, and they did not have the right to inherit or divorce. We see that a single woman had a share of the inheritance from her father, but when she got married, she did not receive any share of this inheritance. In those years, it was also forbidden for women to get divorced in England. Therefore, when a woman got married, she was in a position without an identity and without rights and law. The situation is so severe that a woman did not have the right to file for divorce. On the other hand, Islamic religious rules were applied in the Ottoman Empire. Women had the right to inherit. In case of divorce, there was a certain amount of money, gold, etc. that their husbands had to give to women so that they would not be victimized. In the Ottoman Empire, women could officially divorce if they were subjected to violence by their husbands or in similar situations. However, in the Ottoman Empire, the law allowed polygamy for men.

Feminist consciousness was quite high in England in the 1800s, and women intellectuals like Millicent Fawcett and Mary Wallstonecraft actively promoted women's rights. Women carried out their struggle for rights through the associations they founded. Mary Wallstonecraft's *Vindication of the Rights of Woman* became the cornerstone work of feminism, later all around the world. Today, England is the first country that springs to mind when discussing the fight for women's suffrage and women like Emily Wilding Davison have even given their lives in the struggle for the right to vote. On the other side, feminist awareness had not yet gained any traction in the Ottoman Empire during the 1800s. Male authors tended to write about women's

difficulties. Occasionally, women's organizations were formed, but their main objective was to provide assistance for the poor. Feminist consciousness in the Ottoman Empire would mostly manifest itself in the associations established in the 1900s, newspapers and magazines, marches, and conferences.

In summary, women's access to legal rights and educational possibilities was severely restricted in the 1800s, notwithstanding some distinctions between the two countries. The attitude towards unfairness first appeared in the Ottoman Empire in the 1900s, although it first appeared in England in the 1800s, but the problems that women battled for and attempted to alter were very similar.

NOTES

1. During the Tanzimat and Islahat Edicts, the Ottoman Empire's modernization initiatives accelerated, and significant reforms were implemented (Ortaylı, 2010).
2. One of their assets was mehir. It was the money or property that a man must give to his wife as an obligation arising from the marriage contract. In case of divorce, the husband must pay this dowry; in case of death, it is paid from the inheritance he leaves (Aksoy, 2022).
3. In his research titled Polygyny in Ottoman Society: The Case of Bursa Between 1670-1698, Düzbakar (2008) identified a total of 717 inheritance records belonging to men in the Ottoman city of Bursa between 1670-1698. There are fifty-nine polygamous men among them, and they are mostly from wealthy class. Similar conclusions were reached in the study conducted by Ömer Demirel, Adnan Gürbüz and Muhiddin Tuş (Demirel, Gürbüz & Tuş, 1992).
4. The concepts used here are of Arabic origin and refer to some types of divorce in Islam. Talak is the Arabic name for the divorce. Tafviz-i talak, which means delegating a task to someone else, means that the husband leaves the divorce process to his wife and muhalaa means divorce by mutual consent (Yavuz & Araz, 2021).
5. A court document which is called şer'riye sicili, discovered in a 1535 marriage contract said that Oruç bin Halil and his wife Dilferid bin Abdullah would be divorced if he was absent from her for more than a month. (Bursa Şer'iyye Sicilleri).
6. 1869 Maarif-i Umumiye Nizamnâmesi was a regulation which aimed to make primary education mandatory for everyone, creating curricula, and opening elementary, middle, and high schools in every hamlet, town, and city (Altın, 2018).
7. Before the declaration of the Second Constitutional Monarchy, twelve publications of women or related to women have been identified. The publications that started with Muhadderât continued with Vakit yahud Mürebbi-i Muhadderât (1875), Âyine (1875), Âile (1880), İnsâniyet (1883) and Hanımlar (1883), and then Şükûfezâr (1886), Mürüvvet (1888), Parça Bohçası (1889), Hanımlara Mahsûs Gazete (1895), Hanımlara Mahsûs Malumat (1895) (Kılıç, 2015).

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Chapter 2

HAVING A DISABLED BODY LATER: CHANGE IN SOCIETY'S PERCEPTION

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INTRODUCTION

The body is at the center of the individual's social interaction. In addition, the body is the basis of its existence. What makes an organic being called a human body is its social status and functions. These status and functions become evident in the cultural field. The body becomes the human body as part of an order that covers both social-practical structures (division of labor and hierarchy of power) and cultural meaning structures (Falk, 1997: 45).

The body is a structure on which experiences at every stage of life are built. In this construction, parts of the body -breasts, thighs, lips, eyes, heart, belly, hair, brain, intestines, etc.- in addition to containing more than itself, it also tells more than the whole formed by the parts. Because social life takes place by adding layers of ideas, images, meanings and associations to the biological structure. Bodies and body parts are loaded with public and private, positive and negative, political and economic, sexual, moral, and often controversial social meanings. This is also seen in the qualities, functions, states and senses of the body. Height and weight, eating and drinking, gestures and body language, even various diseases (such as cold or AIDS) are not just physical phenomena. The body is not just a skin, a bone, a collection of parts, a medical object (Synnott, 1993: 1). What the body means to people and society is more than a physical phenomenon. Therefore, what a disabled body expresses will not only bring physical disability, but also differences in perception in society and individually. In this sense, it will be meaningful to define disability.

The definitions of disability have changed in the historical process. Although there are many definitions of the concept of disability, people with disabilities are defined by the United Nations (UN) as "people with long-term physical, mental, intellectual or perceptual disorders that constitute an obstacle to their full and effective participation in society under equal conditions with other individuals" (UN, 2006, art.1). As can be understood from the definition, being disabled eliminates being on equal terms with other individuals and negatively affects the full and effective participation of individuals with disability in society (Orhan and Özkan 2020: 2). The sociology of disability draws attention because the disability situation concerns the society as well as the individual.

The sociology of disability considers the source of this disadvantageous position of the individual with disability in society as the social relations of the individual and deals with social relations with the concept of social pressure. Social pressure is considered as normalization as a result of the transformation of the individual with disability into an individual without disability; if this is not possible, it is considered as an effort to ignore it. It is the society that creates the disadvantageous position of the individual with disability, so

it is the society itself with an optimistic attitude that will try to correct this disadvantageous situation. In this context, the most important social factors that put the individual with disability at a disadvantage are the social, cultural, economic and political characteristics of the society (Burcu, 2017: 112). At this point, the importance of society in disabled body discourse emerges.

Goffman mentions three types of stigma in his *Stigma: Notes on the Management of Spoiled Identity* (2014). The first of which is the stigma caused by deformations in the physical appearance of the body. The second is the stigma caused by disorders associated with the individual's character. Examples include mental disorders, convictions, addiction, alcoholism, homosexuality, unemployment, suicide attempts, and radical political behavior. The third is the stigma caused by biologically transmitted differences from the individual's lineage. Examples include dwarfism, gypsyism, and Judaism (Goffman, 2014: 33). Stigma related to the disabled body is the type of stigma shown by the society about physical deformation that Goffman first mentioned.

It is seen that Goffman's approach to the body proceeds through discussions of normality. Therefore, it is important to be guided by the society in which the individual is located. As such, the individual is evaluated in the social context he/she is in. As a result, disability does not exist through the disability of the individual, but through the effect of the interaction created by the physical difference in people (Burcu, 2020: 54; Samav and Sallan Gül, 2021: 38-39).

The person with disability belongs to the world as a body and experiences it as embodied. Starting from the realization of the birth event, relationships are established with others in an embodied way. The generality of embodied existences, their state of knowing and making sense of the world are learned from other people. For this reason, embodiment is the first stage of sociality (Crossley, 2001: 100-101).

Due to the increase in individuals with disability after the second world war, social reactions were given to the position of the disabled in society. In particular, improvements were requested in relation to social support for the disadvantageous situation experienced by the disabled. Apart from these, the existence of various organizations to prevent the exclusion of people with disabilities draws attention. However, the fact that it is more about the values system of the society than the social aids or the support of the organizations has been revealed in the improvement of the disadvantageous situations of the disabled. In this regard, Finkelstein built a village where only the disabled can live to show the social exclusion of the disabled. After a while, since everything was designed according to the disabled with the arrival of non-people with disability in this village, new general non-individuals with disability be-

came disabled because they were not suitable for the environment. This situation shows that the obstacles are within the society organized by "well-bodied people". Therefore, disability is a condition that occurs in the community and should be treated in the community (Özil, 2023: 38-45). As can be seen in the example, the perception of the disabled body has a social as well as an individual aspect. In this sense, the importance of this study emerges.

The body is a window to the world in any case. In the case of disability, the body is at the center of the experiences of the world. Therefore, the world perceived by people, whether disabled or not, is in a position that cannot exist without the body (Hughes, 2004: 64).

Foucault's body analysis of The Birth of Prison (2006), The History of Madness (2012), and The History of Sexuality (2007) provides insight into how the body and disability are socially constructed. What Foucault basically describes in his works is that disability is not something that limits the abilities of human subjects. (Shilling, 2003: 69-71). In fact, in this study, while those who have a disabled body tend to show their abilities later, they are prevented by the society. Participant 5's statements on this issue are meaningful: *"There is no one saying that you are disabled from your relatives or anything, but when you go somewhere, it only upsets me that they say that you sit down and you are sick."* Therefore, as Foucault says, disability does not limit the abilities of people, and the attitudes of the main society bring a limitation to the disabled.

Individuals' body perceptions directly shape their life experiences and social relations. Therefore, each individual's ideas about his/her body affect his/her whole life. Ideas about the bodies of not only healthy people but also individuals with disabilities affect their lives. Especially when you do not have a disabled body, trying to continue your life by having a disabled body afterwards creates a change in the perception of the society about the body. For this reason, this study addresses the change in the perspectives of the society towards the bodies of women with disabilities after they become disabled. In the study, in-depth interviews were conducted through a semi-structured interview form. The data were analyzed through qualitative data analysis in Maxqda.

FINDINGS AND EVALUATION

The subject of this research is how society's perceptions about the bodies of female individuals who later have disabled bodies have changed. Therefore, the aim of the research is to reveal how the perception of the society has changed about the new bodies of individuals with disabilities after having them accepted as disabled without having a disabled body in the society for a certain part of their lives. In this context, the question of the research

is: How has society's perception of the bodies of individuals with disabilities changed afterwards? Basically, the answer to this question will be sought in the research.

The participants of the study were reached with the snowball sample, which is one of the purposive sampling forms. Snowball sampling is the process of creating a chain sample by meeting with another individual with the help of this individual after contacting an individual with this feature, especially in examining rare situations (Kılıç, 2013: 44). As stated in its definition, a individual with disability was reached first. Then, with her guidance, another participant was reached. Then, the other participant was reached with the guidance of that participant. The sample of the research is limited to 6 female participants. Because it was thought that women had more body-related sensitivities. In other words, it was observed that they had more concerns about their appearance. Likewise, it was difficult to find a sample for this reason. Because it was later understood that women with disabilities did not want to meet their disabilities. With this, it can be concluded that the acceptance of the bodies of women with disabilities is incomplete.[1] 4. Upon the repetition of the discourses after the interview, the interviews were terminated after the sixth interview. Because the opinions on the subject started to show similarities and data satisfaction was achieved. Demographic information of participants is below:

1 One issue that should be mentioned in this regard is that sometimes individuals with disabled bodies have difficulty in accepting that they are disabled, even if they accept themselves. In this study, a disabled woman who accepted the interview had to refuse the interview due to her mother's unwillingness and the interview could not be held.

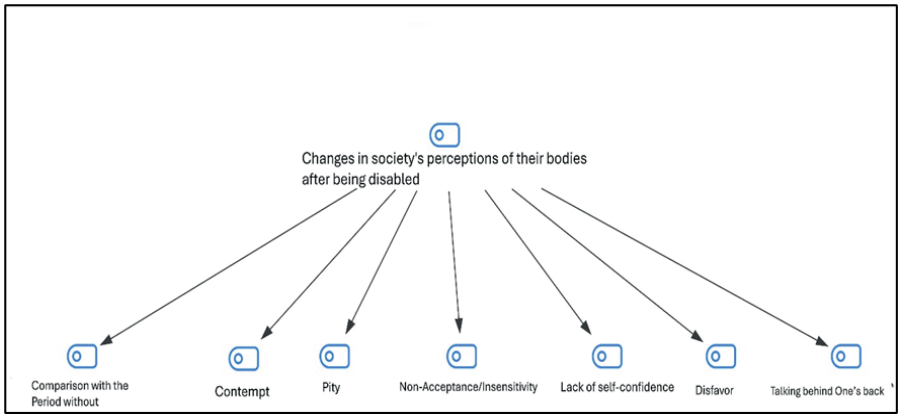
Table 1: Demographic Information

Participants	Age	Gender	Job	Marital status	Disability	At what age does she have a disabled body	Rate of Disability
Participant1	46	Female	Tradesperson	Married	Orthopedic disability and kidney disease	28	96%
Participant2	55	Female	Kindergarten Teacher	Married	Stroke - paralysis	40	60%
Participant3	54	Female	Retired	Single	Behcet disease / Orthopedic disability/kidney disease	15	93%
Participant4	38	Female	Teacher	Single	Vascular/stroke	30	63%
Participant5	40	Female	Businessperson	Single	Kidney disease /Orthopedic disability	35	70%
Participant6	44	Female	Retired	Married	Stroke-Orthopedic disability	32	82%

All of the participants are women, as mentioned above. The age range varies between 38 and 55 years. The professions of the participants vary as tradesperson, two teachers, two retired people and one businessperson. All of the participants have orthopedic disabilities. In particular; there are diseases such as kidney failure, Behcet disease, vascular diseases, stroke. The age at which they have a disability is between 15 and 40 years old. The disability rates are 96% for the highest participant and 60% for the lowest participant.

In this research, qualitative research method was used. Qualitative research began to be used in anthropology, psychology and sociology at the beginning of the twentieth century. (Baltacı, 2017). Qualitative research is a method that is questioning, interpreting and trying to understand the form of the problem in its natural environment (Guba and Lincoln, 1994). It uses qualitative data collection methods such as observation, interview and document analysis for the solution of a problem. In this study, in-depth interviews, one of the qualitative research methods, were conducted. Semi-structured interview form was used as data collection tool. In-depth interviews conducted through semi-structured interview forms were first deciphered and transcribed. The uncovered interviews were analyzed with the MAXQDA 2024 qualitative data analysis program.

Image: 1



A total of 7 sub-themes of the study on the basic theme of changes in society's perceptions of their bodies after being disabled were formed. These sub-themes are compared to the period when there is no disability, contempt, pity, non-acceptance/insensitivity, lack of self-confidence, dislike, talking behind one's back.

Table :2

Code System	Changes in society's perceptions of their bodies after being disabled	Non-acceptance/ insensitivity	Lack of self-confidence	Disfavor	Comparison with the period without disability	Pity	contempt	talking behind one's back
Changes in society's perceptions of their bodies after being disabled	0	5	5	9	8	9	4	
Changes in society's perceptions of their bodies after being disabled > non-acceptance/insensitivity	6	0	0	0	0	0	0	
Changes in society's perceptions of their bodies after being disabled > lack of self-confidence	5	0	0	0	0	1	1	0
Changes in society's perceptions of their bodies after being disabled > Disfavor	5	0	0	0	1	0	0	0
Changes in society's perceptions of their bodies after being disabled > comparison with the period without disability	9	0	0	1	0	1	0	0
Changes in society's perceptions of their bodies after being disabled > pity	8	0	1	0	1	0	0	1
Changes in society's perceptions of their bodies after being disabled > contempt	9	0	1	0	0	0	0	1
Changes in society's perceptions of their bodies after being disabled > talking behind one's back	4	0	0	0	0	1	1	0

As can be seen in Table 2, the number of codes created under the sub-themes belong to the sub-themes of comparison and contempt with the period without disability with nine codes at most. These sub-themes are followed by the pity sub-theme with a maximum of eight codes. Then, it is seen that it creates six codes in the sub-theme of non-acceptance/insensitivity. Five codes were created for the sub-themes of lack of self-confidence and dislike. Finally, four codes were created in the talking behind one's back sub-theme. As can be understood from this, as a result of the in-depth interview with women with disabilities, the comments of the society about their bodies are mostly comparisons and contempt for their former forms. Sub-themes and comments will be sorted according to the intensity of the code content mentioned.

Table:3 Comparison with the Period without Disability

Document Name	Theme/Subtheme	Code
Interview4	Changes in society's perceptions of their bodies after being disabled > comparison with the period without disability	*"I feel like people no longer appreciate me in society. I used to get a lot of compliments about my appearance and body. That's not the case anymore. That makes me sad. People say it's not very visible, but I can tell from their looks, as if to say, "Oh, this girl used to be so beautiful, look at her now."*
Interview5	Changes in society's perceptions of their bodies after being disabled > comparison with the period without disability	*Yes. Those who know my former self are especially filled with pity."*
Interview4	Changes in society's perceptions of their bodies after being disabled > comparison with the period without disability	*"In the past, people would consider me a beautiful and attractive girl. Now they don't usually say it, but those who see me limp and realize I can't use my hand feel sorry for me."*
Interview4	Changes in society's perceptions of their bodies after being disabled > comparison with the period without disability	*"People's opinions have changed a lot, especially physically. I used to be a popular girl. Now I'm not very physically popular."*
Interview6	Changes in society's perceptions of their bodies after being disabled > comparison with the period without disability	*"People now think that I have an unattractive body."*
Interview4	Changes in society's perceptions of their bodies after being disabled > comparison with the period without disability	"*People's perspective on my body has changed a lot. It is not beautiful*"
Interview1	Changes in society's perceptions of their bodies after being disabled > comparison with the period without disability	*"I had a wonderful childhood. I herded cows up in the mountains, planting vegetables and fruits, carrying everything, including grass, on my back. So, I was very healthy. I had nothing wrong with me. Therefore, people didn't have any negative opinions about my body. People looked at me with envy. I worked so hard physically, people would ask, 'How much work does he do?' I didn't have any problems anywhere. So, everyone was pointing fingers."*
Interview1	Changes in society's perceptions of their bodies after being disabled > comparison with the period without disability	"*Some of my friends don't mind my physical disability; they accept it. Because people who knew me when I was healthy don't look at me as disabled because they know I'm a survivor. So, I cut off conversations with people who pity me because I'm disabled."*
Interview1	Changes in society's perceptions of their bodies after being disabled > comparison with the period without disability	*"Yes, it has changed. For example, they always say you were so beautiful when you were young and not disabled, but now you've lost your mind. That's what they say, you know, sometimes I showed a friend a picture of myself as a young girl and she said, "You've evolved." But I was so saddened when she said that. Because we didn't ask for the disease (disability). I wouldn't have asked for evolution either, but there's nothing we can do. I mean, the disease really breaks you down. For example, before I started dialysis, I was 1.57 meters tall. I've been on dialysis for 13-14 years because my bones have eroded. It's down to 1.50 meters. I've lost 7 centimeters. In other words, we're hampered in every way."*

Participants emphasized that the most obvious manifestation of the change in society's perceptions of their bodies after being disabled was their comparison of their old bodies with their current bodies. This sub-theme is one of the most emphasized sub-themes. Later, individuals with disability who tried to exist in society said that people entered into a comparison by referring to their old bodies. Participants stated that they usually received a lot of compliments about their old healthy bodies, but not about their new disabled bodies. In this regard, the participant 4 *said "… I used to get a lot of compliments about my appearance and my body. That is no longer the case. Therefore, I feel sad. People say it's not very obvious or something, but I understand from her gaze, "Oh, this girl used to be beautiful, look at her now..."* and stated that this comparison upset them. Participant 1, on the other hand, stated that she removed the people around her who she expected to be included in such a comparison.

Table:4: Contempt

Document Name	Theme/Subtheme	Code
Interview4	Changes in society's perceptions of their bodies after being disabled > contempt	*"They don't say it to my face, but I'm sure they're thinking it through their minds. Incompetent. Like a lame man."*
Interview3	Changes in society's perceptions of their bodies after being disabled > contempt	*"My family's perspective on people with disabilities was poor. There was psychological pressure. There was contempt."*
Interview3	Changes in society's perceptions of their bodies after being disabled > contempt	*"Society had some very troubling things to say about me. I didn't fully understand these things at the time, but I've always stored them away in my subconscious."*
Interview5	Changes in society's perceptions of their bodies after being disabled > contempt	*"For example, it was very upsetting when my family called me "lame." There was even a song called "lame," and I still get emotional whenever I hear that song or that word. I feel something breaking down in my subconscious. My family always called me "lame." All of this pushed me towards rebellion."*
Interview6	Changes in society's perceptions of their bodies after being disabled > contempt	"*My older brother used to tell me, "Lum girl, study, and see what happens." These kinds of statements also pushed me away from studying."*
Interview3	Changes in society's perceptions of their bodies after being disabled > contempt	*"It's troubling, really troubling. Let me put it this way: The disability in the minds of healthy people is a bigger problem. In our society, we always belittle the weak, and therefore, we also belittle the disabled."*

Interview3	Changes in society's perceptions of their bodies after being disabled > contempt	*"I don't experience it now, but I did in the past. Our neighbor's son used to call me a lame-duck. He was making fun of me, creating a status for himself, and I even saw teachers discriminate against me in class because I was disabled. I was in middle school. I was a very mischievous child. My mischief stemmed from my rebellion against my disability. There were no educators or society in our time who could understand it. I later understood why I acted so rebelliously, but I didn't know it back then either."*
Interview3	Changes in society's perceptions of their bodies after being disabled > contempt	*"One day, when I went to the association, my father asked, "What are you doing with the lame?" He got angry at me, and I said, "Dad, every one of my friends you belittled as lame is a civil servant. They have jobs and respect, I said. You have four healthy children, and they are all workers, do you realize that?" I said, "Yes, you understand what I mean." Like this."*
Interview1	Changes in society's perceptions of their bodies after being disabled > contempt	"*They don't see it as suitable for them, or at least that's how I feel."*

The body of a disabled woman is tried to be isolated from the society. Studies show that the most uncomfortable issues for women with disabilities in society are exclusion and contempt (Altuntaş and Doğanay, 2017:20). The second issue that individuals with disabilities are exposed to by society is *contempt*. Participants stated that while they were not exposed to condescending attitudes by the society before being disabled, there were discourses that would correspond to condescending behavior in the society after having a disabled body. So much so that participant 3 said, "It is *troubling, very troubling. Let me put it this way. The obstacle in the minds of healthy people is the bigger problem. In our society, it is always possible to humiliate the powerless and thus humiliate the* disabled "and showed the attitudes of the society towards the bodies of the disabled. In this sense, he stated that the main obstacle is actually in people's minds. According to the participants, the condescending attitude of people, which was not towards their bodies in the past but developed later, causes great damage under their consciousness.

Table:5: Pity

Document Name	Theme/Subtheme	Code
Interview4	Changes in society's perceptions of their bodies after being disabled > pity	*"Yes. Those who know my old self, especially, sigh with grief. Or they see me on the street and look at me with pity."*
Interview3	Changes in society's perceptions of their bodies after being disabled > pity	"*Society's view of people with disabilities used to be much worse. At first, I had a complex about it. Even the streets and avenues weren't suitable for us when I was young. We were constantly falling down. And as a result, people's stares bothered me."*
Interview3	Changes in society's perceptions of their bodies after being disabled > pity	*"It was very distressing, like being a second-class citizen... Let me give you an example: I need a wheelchair. Society doesn't know if this chair is suitable for me, so I have to explain it. In other words, people seem to have a good perspective in terms of compassion, but because they haven't lived within themselves, they aren't very conscious."*
Interview1	Changes in society's perceptions of their bodies after being disabled > pity	"*Because my foot bothers me when I go out, society's perspective on disability is more negative. People look at me this strangely, and it bothers me. I wouldn't want to be disabled, but when I ask, "Oh, you're disabled? Is your leg disabled? Why are you on dialysis?" Asking and answering the same questions can be psychologically damaging. That's why I don't want to interact with people much."*
Interview1	Changes in society's perceptions of their bodies after being disabled > pity	*"After I became disabled, they didn't show it to me, but they would look at me with pity about my body, saying things like, "Oh, we're so upset," and so on. That's when I got even angrier. For example, when I go to my own family, they'll tell me, "You're sick, sit down." For example, when I go to wash dishes, you're sick, sit down. When I go somewhere, you're sick, sit down. I didn't want to accept these things. The more they told me, "Don't see me as a patient, I'm not sick," the more they told me, "You're sick, sit down, you can't do that, you can't do that," and they destroyed my self-confidence."*
Interview6	Changes in society's perceptions of their bodies after being disabled > pity	*"I'm disturbed by people's attitudes toward my disability. Physically, phrases like "Oh, look at her, she's limping," or "Oh, look at her, she's on a crutch," or "Oh, she's on dialysis," all weigh us down psychologically. At that moment, I feel inadequate. I mean, why me? Why me? I mean, why me?"*
Interview5	Changes in society's perceptions of their bodies after being disabled > pity	*"None of my relatives say I am disabled, but when I go somewhere and they say I am sick and sit down, it only makes me sad, otherwise there is no mockery about my disability."*
Interview1	Changes in society's perceptions of their bodies after being disabled > pity	*"When it comes to society, of course, it has an impact. For example, when we get on the bus, he says, "Oh, she's bothered by her bad leg. And when you're told, 'Oh, you're bothered by your leg, come and sit down,' you're happy to be eliminated, but at the same time, you're sad because you found a seat. Why does he belittle me like this? But we have to get used to it."*

The tension that women with disabilities feel in their social interactions depends on their personal expectations about appearance and their prejudices about the reactions they will receive from the environment. The reactions they receive due to their disability cause them to believe that their body is a source of

"guilt, pain and shame". Such perceptions sustain feelings of inferiority, a weak body concept, and avoidance of social interaction. It is the society that causes these feelings to occur in the individual with disability (Gross et.al. 87-96). One of the sub-themes of the basic theme of changes in society's perceptions of their bodies after being disabled is *pity*. Participants stated that one of the attitude changes of the society after individuals have a disabled body is that they develop a pity reaction towards them. Participant 4 "*Yes. Those who know my old self are sighing for me in particular. Or lookings in a pitying state when seeing on the road...*" The second issue emphasized by the participants under the sub-theme of pity is that the society develops too much sensitivity about their bodies. In other words, even if they do not need help, people want to help in a sense due to the changing disability in their bodies, or they engage in an act of distancing individuals with disabled bodies by saying that you cannot do it.

Table:6: Non-Acceptance/Insensitivity

Document Name	Theme/Subtheme	Code
Interview3	Changes in society's perceptions of their bodies after being disabled > non-acceptance/insensitivity	"*We have more problems than in the past. I think our visibility has diminished. People are less sensitive to people with disabilities. We've made a difficult effort to integrate ourselves into society, but recently, things have started to deteriorate again.*"
Interview3	Changes in society's perceptions of their bodies after being disabled > non-acceptance/insensitivity	*"In conclusion, the main problem is not my orthopedic disability but the fact that society does not understand my disability and has mental barriers regarding my body."*
Interview5	Changes in society's perceptions of their bodies after being disabled > non-acceptance/insensitivity	*"If people could empathize and understand people with disabilities, I would feel more comfortable. Because I think people cannot empathize."*
Interview3	Changes in society's perceptions of their bodies after being disabled > non-acceptance/insensitivity	*"It's definitely a problem created by society. I place greater emphasis on moral considerations. When a person's morality is at the forefront, they better understand what it means to be disabled. In other words, you eliminate the obstacles faced by people with disabilities."*
Interview1	Changes in society's perceptions of their bodies after being disabled > non-acceptance/insensitivity	*"When I go out in public, for example, you're going somewhere and your friends are walking fast, but you're walking slowly behind. Or your friends have to wait for you, and then when they huff and puff, it makes me uncomfortable."*
Interview2	Changes in society's perceptions of their bodies after being disabled > non-acceptance/insensitivity	*"I went to the summer house. He doesn't know a thing or anything. He said, 'What happened to your foot?' He said, 'I can't explain it to these women,' and they don't listen. He probably thought I fell or something. I asked my wife, 'Is he an idiot or something? What does he know? He's talking about me too. You know how they say it's easy for single women to divorce... when does it happen to a person? Then they understand. You stupid man, does anyone want to be disabled? No one wants to live with a disability. Why does he talk to my bae like that? 'I can't explain it to these women, they don't understand,' etc.* *I'm sure it happens, but what I remember most clearly is this man's words."*

Wanting to be accepted is a very basic human emotion. The fact that people want to be accepted is more about identity building than feeling super, perfect, or adequate. (Purutçuoğlu and Aksel, 2017:428). The fourth subtheme of the theme of change in society's perceptions of their bodies after being disabled is non-acceptance/insensitivity. Since individuals with disability later have a disability in their bodies, it takes time for even them to accept the process. However, the society's refusal to accept and reflect this situation against individuals with disabilities makes the life of the individual with disability even more difficult. Participant 1: *"When I go to society, for example, you go somewhere, your friends take quick steps, but you go slowly in the back. Or your friends have to wait for you, then I get uncomfortable when there is a sighing puff. "* and emphasized the lack of acceptance in the society and the insensitivity of the society. Again, the participants talk about the discomfort of the attitudes of people towards their bodies after being disabled, which implies that they gained that disability due to their negligence.

Table 7: Lack of self-confidence

Document Name	Theme/Subtheme	Code
Interview4	Changes in society's perceptions of their bodies after being disabled > lack of self-confidence	*"There are many downsides: first and foremost, it damages your self-confidence. The way people look at your body makes you uncomfortable."*
Interview4	Changes in society's perceptions of their bodies after being disabled > lack of self-confidence	*"There is definitely a personal side to it because that obstacle is your own individual obstacle, but it is also on the side that society creates, in other words, society actually reinforces the obstacle situation."*
Interview3	Changes in society's perceptions of their bodies after being disabled > lack of self-confidence	*"One day, when I went to the association, my father asked, "What are you doing with the lame?" He got angry at me, and I said, "Dad, every one of my friends you belittled as lame is a civil servant. They have jobs and respect, I said. You have four healthy children, and they are all workers, do you realize that?" I said, "Yes, you understand what I mean." Like this."*
Interview2	Changes in society's perceptions of their bodies after being disabled > lack of self-confidence	*"Of course, my self-confidence is damaged. Simply put, I go to the choir, and the women there are making programs, like going abroad or somewhere else, and I can't join them. It's like I have a disability."*
Interview1	Changes in society's perceptions of their bodies after being disabled > lack of self-confidence	*"None of my relatives say I am disabled, but when I go somewhere and they say I am sick and sit down, it only makes me sad, otherwise there is no mockery about my disability."*

Participants stated that the change in the perceptions and behaviors of individuals in the society after they became disabled created lack of self-confidence in themselves. Therefore, the sixth sub-theme is lack of self-confidence. Subsequently, individuals with disability say that they are prevented from any action they want to perform with their bodies, and therefore their self-con-

fidence is broken. *In this regard, participant 1 says: "There is no one from my relatives who says that you are disabled, but when you go somewhere, it only makes me sad that they say that you are sick." In the same way, participant 4* mentions actions that damage self-confidence in the society *by saying: "There is a lot of negativity: First of all, your self-confidence is damaged. It bothers the way people look at your body.*" It should be noted that this sub-theme is a reaction to the change in the perceptions of the society. Since it is frequently included in in-depth interviews, it is included as a separate sub-theme.

Table 8: Disfavor

Document Name	Theme/Subtheme	Code
Interview4	Changes in society's perceptions of their bodies after being disabled > Disfavor	*"I feel like people don't like me anymore in society. I used to get a lot of compliments about my appearance and body. That's no longer the case. That's why it makes me sad. People say it's not very visible, but I can tell from their eyes, like, "Oh, this girl used to be so beautiful, look at her now."*
Interview4	Changes in society's perceptions of their bodies after being disabled > Disfavor	"*As I said, men don't want to marry a girl who's too lame or crippled. In fact, over the past few years, I've met people with marriage aspirations. Even if they don't tell you the exact reason, you understand. They don't continue seeing each other because they don't like her physically.*"
Interview3	Changes in society's perceptions of their bodies after being disabled > Disfavor	*"In fact, I used to obsess over my gait when I was younger. I wanted to walk better. I even had surgery to make myself healthier. I was limping a lot, so I went and had surgery to improve my gait. Frankly, it didn't have much of an effect."*
Interview1	Changes in society's perceptions of their bodies after being disabled > Disfavor	"*Sometimes they don't want to be friends with me because of my disability. But as we talk and establish a dialogue with them, my ideas and my conversations become more appealing to them.*"
Interview1	Changes in society's perceptions of their bodies after being disabled > Disfavor	*"Of course, society's perspective changes. Because there's a huge difference between a healthy person and a disabled person. For example, when you're healthy, you joke around with your friends, go and see them. Now, when you're disabled, for example, a friend of mine, a very nice woman, recommended me, and she said, "Let's meet up." When she saw that I was using crutches and my feet were the same, I saw her face change. I was deeply saddened. After that, the man who always invited me stopped calling and inquiring about my disability."*

In general, women with disabilities think that their body forms and the tools they use are[2] ugly and not liked by the society. Especially women with orthopedic disabilities seem flawed, unwanted, and asexual by the society (Purutçuoğlu and Aksel, 2017:430). As a matter of fact, according to this study, one of the changes in the perception of society towards the bodies of individuals with disability after they become disabled is that they are no longer liked in society. While individuals with disabilities have encountered the behavior of being liked about their bodies before, they say that their bodies are not liked by the society after being disabled. Participant 4 expresses her opinion on this

2 Wheelchair, etc.

issue by saying *"I feel that people no longer like me in their society. I used to get a lot of compliments about my appearance and my body. There is no such situation anymore... "*. The same participant stated that her opinion about marriage was completely related to her physical disability. In other words, while she looked at marriage warmly before having a disabled body, she developed a negative outlook afterwards. The thought that it will not be liked is effective on this point. A previous study on this subject supports this finding. In fact, it has been revealed that women with orthopedic disabilities do not consider marriage because they are disabled (Buz and Karabulut, 2015: 31).

Table 9: Talking behind One's back

Document Name	Theme/Subtheme	Code
Interview4	Changes in society's perceptions of their bodies after being disabled > talking behind one's back	"*They don't say it to my face, but I'm sure they're thinking it. Incompetent. Lame, crippled, like...*"
Interview3	Changes in society's perceptions of their bodies after being disabled > talking behind one's back	*"I had a very complex. While everyone around me was normal, I started to crawl. When I crawled, I felt sad and couldn't say anything. Or I would wet myself from time to time, feeling like people were talking behind my back. Or I would wet myself from time to time. I was ashamed."*
Interview1	Changes in society's perceptions of their bodies after being disabled > talking behind one's back	*"After I became disabled, they didn't show it to me, but they looked at me with pain about my body."*
Interview1	Changes in society's perceptions of their bodies after being disabled > talking behind one's back	*"Sometimes it gets on my nerves when they say, "Oh, are you limping?" I don't allow it either. They can't call me names because they know I'll react. But I don't know if they call me names behind my back. Or maybe they don't say it to my face, and when they do, they get their comeuppance anyway."*

According to the participants, one of the actions developed by the society about the body of the individual with disability after being disabled is that they talk behind their backs. The last sub-category of this study is talking behind one's back. According to the participants, even if people do not comment on their bodies to their faces, it makes them feel that they can make negative comments about their body where there is no individual with a disabled body. So much so that the participant 4 expressed her opinion on the subject *by saying, "They don't say it to my face, but I'm sure they consider it such as Incompetent, cripple, one-armed* and so on..."

CONCLUSION

Disability is a concept that includes being the disadvantageous segment of the society and the necessity of special arrangements for this disadvantageous segment. However, in the historical process, the existence of an even more disadvantageous group among individuals with disability has attracted attention: Women with disabilities (Orhan and Özkan, 2020:2). In fact, it can be said that women with disabilities who try to live in society within the scope of this study are more disadvantageous. Since the body itself is a living being in society, it looks, sees and produces meaning. However, the living body does not perceive the world only through itself. Because it sees and understands itself as an object in the eyes of other bodies, just as it sees other bodies as objects (Esenyel, 2022, p. 133). Therefore, the body perception of the society emerges by taking an important phenomenon. Especially in certain periods, the change in the perception of the changed bodies by the society before and after is remarkable. As a result, in this study, the answer to the question "How has the perception of society towards the bodies of individuals with disabilities changed?" was sought. As a matter of fact, in the analysis of the in-depth interviews carried out within this framework, basically seven titles emerged. According to the data density, the first of these was the comparison of the body in the period after the disability with the period without disability. Afterwards, contempt, pity, non-acceptance/insensitivity, disfavor, talking behind are attitudes that the society have towards individuals with disability after having a disabled body, but people with disability don't encounter before they become disabled. The sub-category of lack of self-confidence appears in women who later have a disabled body as an output of the change in the perception of the society.

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Chapter 3

THE CONTRIBUTION OF STRATEGIC MANAGEMENT PROCESSES TO ORGANIZATIONAL PERFORMANCE AND AN EVALUATION FROM PRACTICE

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1. Introduction

In today's business environment, where global competition is intensifying, economic uncertainties are increasing, and technological transformation is accelerating, achieving sustainable success has become increasingly dependent on enterprises' ability to think and plan strategically. In this context, strategic planning emerges as a fundamental managerial tool that enables organizations to adopt a proactive stance in the face of environmental threats and opportunities, allocate resources effectively, and achieve their long-term objectives. The strategic planning process is not merely a technical activity of analysis and goal setting; rather, it constitutes a holistic structure that aligns corporate vision and mission with organizational capacity, incorporates stakeholder participation, and embraces an agile governance approach.

Contemporary management approaches employed in strategy development—such as SWOT Analysis, Blue Ocean Strategy, the Balanced Scorecard, and the Resource-Based View (RBV)—enable firms to build competitive advantage by considering both internal dynamics and external environmental conditions. This theoretical framework demonstrates that strategic management influences not only business performance but also multidimensional outcomes ranging from environmental sustainability to organizational resilience.

This study examines the impact of strategic planning on business success from both theoretical and practical perspectives. In the theoretical section, the concepts of strategy and strategic planning are elaborated, and the stages and methods of planning processes are analyzed. In the practical section, the impact of strategic planning on performance is explored through the activity reports of two major institutions in Turkey: Turkish Airlines (THY) and Aksa Natural Gas. THY's 2023–2033 Strategic Plan and Aksa Natural Gas's 2022 Activity Report reveal, with concrete evidence, how these organizations in different sectors strategically position themselves, manage crises, and advance toward their long-term objectives.

Accordingly, the primary aim of this study is to conduct an in-depth analysis of the contributions of strategic planning to business success; to evaluate the practical reflections of strategic management theories through real-world examples; and to reveal the multidimensional effects of strategic planning on organizational efficiency, agility, and sustainability.

This research is structured on the basis of a qualitative methodology and employs the documentary analysis technique. Secondary data sources—including Turkish Airlines' 2023–2033 Strategic Plan and Aksa Natural Gas's 2022 Activity Report—are analyzed in detail to assess the impact of strategic planning processes on business performance. These documents are examined

within the framework of contemporary strategic management approaches such as SWOT Analysis, the Balanced Scorecard, Blue Ocean Strategy, and the Resource-Based View. Through this method, both the theoretical background of the strategic planning process and the concrete performance outcomes across two different sectors are evaluated in a multidimensional manner.

2. Conceptual Framework

2..1. The Concept of Strategy

The concept of strategy refers to the management of actions or plans undertaken by firms with their existing resources to achieve the objectives they have defined (Haksever, 2024: 6). The term began to be used in the fields of business and management in the second half of the 20th century. In this context, strategy similarly denotes the mobilization of a firm's resources to regulate its relationships with the environment and gain a competitive advantage over rivals. However, there is still no consensus on the definition of the concept (Özçam, 2007: 2).

The lack of a universally accepted definition can be attributed to several factors: the focus of strategy on the firm's relationship with its constantly changing environment, which increases uncertainty; the diversification of business functions; and the differing perspectives of scholars on the subject. Nevertheless, there is general agreement that strategy primarily serves to regulate the relationship between the firm and its environment (Özçam, 2007: 2).

2..2. The Concept of Strategic Planning

Strategic planning refers to a participatory and flexible planning approach that enables organizations to establish a vision for the future based on their current status, mission, and foundational principles, set objectives aligned with this vision, and monitor and evaluate success through various indicators, while also forming the basis for accountability (Gözlükaya, 2007: 26). Goodstein et al. define strategic planning as "the process by which an organization envisions how it wants to see itself in the future and develops and directs the necessary actions and implementations to achieve that vision" (Gözlükaya, 2007: 26).

Strategic planning is often perceived as a mechanical process consisting merely of certain techniques, and the fundamental changes it requires in managerial mindset are frequently overlooked. Above all, strategic planning is a continuous and dynamic process that requires the organization—and its managers at all levels representing it—to maintain a critical perspective on their functions, activities, and the outcomes they generate (TEPAV, 2005: 5).

In management science, particularly concerning the strategies that firms or companies follow against competitors, the concept of "Strategic Planning"

emerged first, followed in later years by the discipline called "Strategic Management." Today, strategic management constitutes a significant research area within management science, and organizations cannot achieve sustainable competitive advantage without strategic planning. Strategic planning is not a one-time activity; rather, it is a process that necessitates the participation of all internal and external stakeholders (Demir & Yılmaz, 2010: 70).

2..3. The Stages of Strategic Planning

Strategic planning is inherently a process. It represents the path between the organization's current state and its desired future position. Strategic planning carries a long-term and forward-looking perspective (Eryiğit, 2016: 154). It emerges as a product of developmental activities and is approached differently in each organization (Özalp, 1998: 36).

Within this framework, strategic planning encompasses a selection process among alternative future courses of action that concern the organization as a whole or specific units. It seeks answers to questions such as what will be done, how, by whom, when, with what resources, and why. While addressing these questions, planning must possess certain characteristics: comprehensiveness, flexibility and dynamism, a decision-making and choice-making process, prioritization, and the ability to achieve objectives and goals. Effective planning enhances an organization's competitiveness and facilitates motivation, delegation of authority, coordination, and control (Keser, 2019: 32).

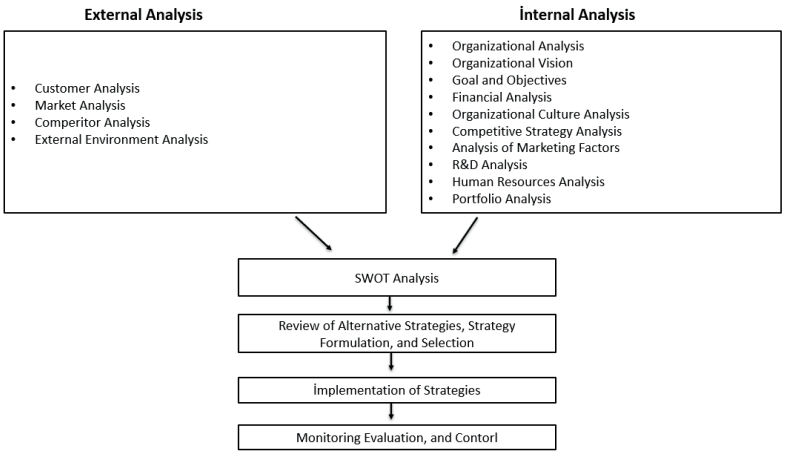

Figure 1.1 *Stages of Strategic Planning*

Source: Keser, M. (2019). Stratejik Planlama Süreçlerinin Değerlendirilmesi ve İşletmelerin Stratejik Planlamaya Yaklaşımlarının Analizi, 32.

2..3..1. SWOT-Based Strategic Planning Model

One of the most critical components of strategic management is conducting a SWOT analysis. SWOT analysis is a technique that allows organizations to assess their internal and external environments.

There are two primary benefits of conducting a SWOT analysis within organizations. First, it enables the organization to determine its current situation by identifying its strengths and weaknesses, as well as the opportunities and threats it faces. In this sense, SWOT serves as a "Current State Analysis." Additionally, SWOT is a technique that helps forecast and predict the organization's future conditions (Özköse, 2013: 6).

For businesses to achieve success, it is crucial to understand both the external environment in which they operate and their internal environment. Therefore, analyzing both environments becomes imperative. Based on the information collected and prepared for use, the organization's higher-level system (external environment) and its subsystems (internal environment) are examined (Özköse, 2013: 7). From a strategic management perspective, the relationship between the firm and its environment focuses on two main points: environmental conditions and organizational capabilities. The primary objective of strategic management is to ensure alignment between the organization's resources and capabilities and the external environment (Özköse, 2013: 7). SWOT analysis provides a broad perspective, allowing organizations to simultaneously compare strengths and weaknesses from the internal environment with opportunities and threats from the external environment (Özköse, 2013: 8).

2..3..2. Blue Ocean Strategy

Traditional competitive strategies focus on "red oceans," where firms attempt to outperform competitors in already existing markets. These areas are often saturated markets characterized by price competition and low profit margins. In contrast, the Blue Ocean Strategy advocates creating new, unexplored market spaces where competition is irrelevant and value is generated through innovation (Kim, 2017: 23).

According to Kim and Mauborgne, blue oceans are "market spaces that do not yet exist," where competition becomes meaningless (Kim, 2017: 12). Blue oceans are generally created through two primary strategic approaches: differentiation and simultaneous cost leadership. This approach aims to provide high value to customers while reducing company costs (Kim, 2017: 39).

A key tool used in developing a blue ocean strategy is the strategy canvas, which visualizes the current competitive landscape and identifies opportunities for innovative value creation (Kim, 2017: 40). Additionally, the four-action

framework (Eliminate, Reduce, Raise, Create) allows companies to make radical changes in products or services to generate new demand (Kim, 2017: 52).

Practical examples of this strategy include Cirque du Soleil, Nintendo Wii, Dyson, and Yellow Tail Wines. These firms have successfully created their own blue oceans by breaking traditional competitive patterns in their industries (Kim, 2019: 110). Although Blue Ocean Strategy holds significant innovation potential, its applicability may be limited in certain sectors. Furthermore, any blue ocean can gradually become a red ocean as competition increases, raising concerns regarding the sustainability of the strategy (Çelik, 2020: 89).

2..3..3. Balanced Scorecard (BSC) Model

The transition from an industrial society to an information society has led to significant changes in business practices, as work environments designed for industrial conditions no longer adequately address current needs. The Balanced Scorecard (BSC) method provides effective solutions to the failures of strategic implementations and traditional performance systems encountered by knowledge-based organizations, thereby contributing to the achievement of organizational goals. The BSC offers a framework that translates the organization's vision, mission, and strategy into performance measures, including non-financial criteria, to address problems in performance evaluation (Güner, 2008: 250).

The Balanced Scorecard system explains the strategic dimensions of the organization and integrates strategic measures, significantly influencing managers' approaches to evaluating their organizations and their use of time and resources. Crucially, it establishes a link between various performance measures and the organization's strategy. In this context, the BSC approach uses a wide range of performance criteria that support key management values, including customers, quality, profit, human resources, innovation, flexibility, and learning. Therefore, the Balanced Scorecard is not merely a performance measurement system; it is also a management system that can direct the energy, skills, and specific knowledge of employees toward achieving long-term strategic goals (Karaman, 2019: 412).

For organizations to sustain their existence, long-term success must be achieved. At the same time, short-term objectives must also be met to satisfy partners and shareholders. Accordingly, a BSC should balance short-term and long-term goals, recognizing that the achievement of successive short-term goals contributes to long-term strategic success (Güner, 2008: 258).

The BSC emerged as a response to the insufficiency of traditional performance systems based solely on financial metrics. It emphasizes the need

to include non-financial indicators, which serve as leading measures providing insight into operational outcomes, alongside financial metrics. Therefore, performance measures within the scorecard should encompass both financial and non-financial criteria (Güner, 2008: 58).

Additionally, the Resource-Based View (RBV) argues that a firm's unique internal resources provide strategic advantages in creating competitive superiority. In contrast, classical models prioritize adaptation to the external environment and often overlook the strategic importance of internal resources (Barney, 1991: 105–106).

Organizations serve two types of customers: internal and external. Employees are considered internal customers, while consumers and shareholders are external customers. Performance measures included in the scorecard should address the informational needs of all stakeholders (Güner, 2008: 258).

The Balanced Scorecard evaluates organizational performance from four perspectives, which constitute its dimensions:

- Financial Perspective
- Customer Perspective
- Internal Processes Perspective
- Learning and Growth Perspective (Karaman, 2019: 419)

3. Strategic Planning Examples in the Light of Activity Reports

3..1. Turkish Airlines – International Growth and Competitive Strategy

Strategic planning aims to create long-term competitive advantage by aligning corporate vision with organizational resources. In the literature, approaches such as Ansoff's "strategic fit," Porter's "competitive positioning," and Kaplan & Norton's Balanced Scorecard emphasize the impact of a well-structured plan on market share, profitability, and sustainable growth. Turkish Airlines' (THY) 2023–2033 Strategy provides a multi-layered application of these approaches, making it a suitable example for examining the concrete contribution of strategic planning to organizational performance (THY, 2023: 2–16).

3..1..1. Key Components of THY's 2023–2033 Strategy

3.1.1.1. Growth and Fleet Transformation

In 2022, THY's fleet consisted of 64 next-generation aircraft. By 2033, the airline aims to expand this fleet to 200 aircraft, with 75% of the total fleet comprising next-generation planes, thereby reducing fuel consumption per seat by 15–25%. During the same period, the airline plans to increase interna-

tional route capacity (Available Seat Kilometers – ASK) by 75% and the total number of seats by 14% compared to 2019. This critical capacity expansion is designed to support revenue growth through economies of scale (THY, 2023: 14).

3.1.1.2 Digital Transformation and Customer Experience

THY aims to achieve an "end-to-end integrated customer experience" through initiatives such as continuous in-flight internet, integrated retail platforms, and biometric contactless boarding. Cabin upgrades, including the renewal of 30,000 seats and the provision of Wi-Fi on all aircraft, are intended to enhance service quality and increase the Miles&Smiles loyalty program membership by 1.5 times (THY, 2023: 13).

3.1.1.3 Sustainability

THY is using Sustainable Aviation Fuel (SAF) on European routes such as Paris and Gothenburg and aims to reduce total fuel consumption by 5% through operational improvements by 2033, with the goal of becoming a carbon-neutral airline by 2050. Carbon offset initiatives under ORSIA and LEED-certified buildings further support energy efficiency targets (THY, 2023: 4).

3.1.1.4 R&D and Human Resources

Allocating 1% of revenue to training and investing USD 600 million in the first phase and USD 1.2 billion in the second phase in R&D to strengthen human capital will reinforce a learning organization culture and enhance innovation capacity (THY, 2023: 4).

3.1.1.5 Branding and Marketing

Sponsorships of UEFA Champions League, Euroleague, and Porsche Tennis Grand Prix aim to enhance global brand awareness and access diverse customer segments. Additionally, opening 20 new international lounges by 2028 will contribute to a premium customer experience (THY, 2023: 11).

3..1..2. Reflections of Strategic Planning on Organizational Performance

As illustrated in Table 4.1, this holistic approach incorporates not only the dimensions of the Balanced Scorecard (financial, customer, process, and learning) but also elements of value innovation from the Blue Ocean Strategy. For example, the simplification of digital touchpoints and contactless services enhances the value curve presented to customers while simultaneously optimizing the cost base (THY, 2023: 2–18).

Table 3.1 Impact of Strategic Planning on the Business Performance of Turkish Airlines

Strategic Dimension	Planned Initiative	Potential Impact on Organizational Performance
Resource-Based View	Next-generation fleet investment	Cost leadership through fuel efficiency; differentiation via reliable operations
Digitalization	Integrated retail + Wi-Fi	Increased passenger satisfaction → higher load factor & ancillary revenue
Sustainability	SAF & carbon-neutral target	Regulatory compliance, enhanced green brand value, long-term risk reduction
Marketing	Global sponsorships	Strengthening brand equity, new market penetration
Learning & R&D	Training and R&D budget	Enhanced innovation capability, service quality, and organizational agility

Source: Created by the author

3..2. Aksa Doğalgaz 2022 Annual Report

Strategic planning aims to align organizational resources with long-term objectives, whereas crisis management seeks to ensure business continuity in the face of unforeseen threats. When examined together, the Resource-Based View (RBV), the Balanced Scorecard (BSC), and the Corporate Resilience literature indicate that a well-structured strategy combined with effective crisis management synergistically enhances organizational performance. The 2022 Annual Report of Aksa Doğalgaz provides a concrete example of this relationship (Aksa Doğalgaz, 2022: 7).

3..2..1. Strategic Roadmap of Aksa Doğalgaz

Table 4.2 encompasses the financial, customer, internal process, and learning and growth dimensions of the BSC, while integrating the principle of "value innovation" from the Blue Ocean Strategy into the organization through carbon reduction projects.

Table 3.2 The Impact of Aksa Natural Gas's Strategic Roadmap on Organizational Success

Dimension	Planned / Implemented Initiative	Performance & Success Expectation
Growth & Investment	Increase subscriber base by approximately 10% annually, targeting 6 million subscribers and 60,000 km of network coverage within 5 years	Economies of scale, maintaining 21% regional market share
Digital Transformation	SAP CRM/IS-U & S4/HANA integration; 360° customer process under a single platform	Operational agility, reduction in error costs, increase in NPS
Sustainability	Annual reduction of 9.3 Mt CO_2; "Low Carbon Hero" award; e-bike project for meter reading	Green brand value, regulatory compliance, social benefits
Risk & OHS Management	ISO 9001-14001-45001 integration, 76,000 hours of OHS training, "Zero Work Accident" target	Reduction in accident frequency, workforce continuity
Financial Resilience	JCR A+ (tr) credit rating	Investment attractiveness, low capital cost

Source: Created by the author

3..2..2. Crisis Management Assessment

2.2.2.1 Earthquake Crisis (6 February 2023)

Immediately following the Kahramanmaraş-centered disaster, Aksa Group mobilized its resources to the affected region, maintained 24/7 coordination with public institutions, and deployed field personnel. These actions demonstrated the company's capacity for social responsibility and operational continuity. Commemorative and support initiatives for affected employees strengthened both employee commitment and corporate reputation (Aksa Doğalgaz, 2022: 2).

2.2.2.2 Global Energy Crisis (Russia-Ukraine War)

Despite high price volatility, the company implemented supply and pricing strategies using a "predictive and agile" approach, ensuring uninterrupted supply security. The pre-established digital infrastructure enabled rapid conversion of scenario analyses into actionable decision sets (Aksa Doğalgaz, 2022: 5).

2.2.2.3 Corporate Risk Management (Proactive OHS & Environment)

Annual risk assessments, root cause analyses, and OHS (Occupational Health and Safety) funds have sustainably supported the vision of "zero workplace accidents." The ISO 14001 certification and waste management program

mitigated the financial impact of environmental crises, including greenhouse gas regulations (Aksa Doğalgaz, 2022: 1).

2.2.2.4 Contribution of Strategic Planning and Crisis Management to Organizational Success

Financial Performance: A 252% increase in revenue in 2022 and the maintenance of an investment-grade credit rating indicate that the strategic plan achieved its financial objectives despite crises (Aksa Doğalgaz, 2022: 16).

Operational Continuity: The absence of service interruptions following the earthquake and the sustained distribution of 10.5 billion m^3 of natural gas throughout the war year reflect the operational outcomes of integrating strategy and crisis management (Aksa Doğalgaz, 2022: 19).

Social License and Reputation: Regional relief efforts and carbon projects reinforced stakeholder trust, facilitating long-term market expansion (Aksa Doğalgaz, 2022: 21).

Learning and Agility: The SAP digitalization and performance management systems accelerated post-crisis target-setting cycles, systematically institutionalizing organizational learning (Aksa Doğalgaz, 2022: 17).

By integrating its strategic plan (growth, digitalization, sustainability) with principles of organizational resilience, Aksa Doğalgaz demonstrated successful performance under both predictable trends (subscriber growth, carbon regulations) and unforeseen shocks (earthquake, energy supply crisis). The Annual Report provides a contemporary case study illustrating how the interplay between strategic planning and crisis management can optimize organizational success. Therefore, the company serves as a valuable case for applying the theories of "strategic alignment" and "corporate resilience" in practice (Aksa Doğalgaz, 2022: 8–76).

4. Conclusion and Recommendations

This study aimed to evaluate the impact of strategic planning on organizational success from a comprehensive perspective, incorporating both theoretical and practical examples. Strategic planning is a critical managerial tool enabling firms to navigate environmental uncertainties, allocate resources efficiently, and achieve sustainable competitive advantage. In particular, strategic management approaches such as SWOT Analysis, Balanced Scorecard (BSC), Blue Ocean Strategy, and the Resource-Based View (RBV) play a key role in analyzing internal and external dynamics and setting strategic objectives.

Theoretical findings indicate that strategic planning is not merely a technical process; it is a dynamic structure interacting with organizational learn-

ing, leadership, crisis management, and employee engagement. Accordingly, strategic planning should be regarded as a governance process requiring stakeholder participation and continuous review. Its successful implementation depends on effective communication with all organizational members and the incorporation of their suggestions and feedback.

The applied case studies of Turkish Airlines (THY) and Aksa Doğalgaz demonstrate the tangible impact of strategic planning across different sectors and its influence on performance outcomes. THY's 2023–2033 strategic plan emphasizes sustainability, digitalization, customer experience, and international brand strategies. In contrast, Aksa Doğalgaz has integrated strategic planning with principles of corporate resilience through crisis management, carbon projects, and digital infrastructure investments. Both cases illustrate how the Balanced Scorecard model translates strategic objectives into operational outcomes. In other words, strategic planning not only supports long-term goal achievement but also establishes the foundation for organizational agility and resilience during unexpected crises.

In conclusion, the contribution of strategic planning to organizational success extends beyond financial performance to encompass organizational agility, adaptive capacity to crises, innovation, and stakeholder relations. Consequently, organizations should view strategic planning not as a static document but as a living process adaptable to environmental dynamics. Future research should empirically assess the effectiveness of strategic planning across various sectors to further enhance both theoretical understanding and practical application.

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Chapter 4

EVALUATION OF THE KITESURFING AND WINDSURFING POTENTIAL OF LAKE VAN IN TERMS OF ADVENTURE TOURISM

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1. Introduction

Türkiye -a bridge between the Asian and European continents due to its location- has a great potential in terms of tourism with its historical and cultural richness, coastline on three seas, climate diversity, flora and fauna, landforms that differ from region to region, lakes and rivers. This potential contributes to Türkiye being among the favorite destinations of tourists interested in many different tourism types such as cultural tourism, gastro tourism, yacht tourism, health tourism, faith tourism and adventure tourism. In addition to its coastline on three different seas, its lakes and rivers also attract those interested in water-based hard and soft adventure activities, especially within the scope of adventure tourism. The Lake Van also has convenient conditions for water-based adventure activities.

Kitesurfing and windsurfing, which are among the water-based soft adventure activities that are the focus of the study, depend on the presence of suitable wind conditions (Yıldız, 2021). For kitesurfing, the basic equipment that must be owned is a kite that moves the surfer with the power of the wind, a special rope and control bar that are produced in a sturdy quality that transfers the power of the wind to the surfer, and a board that can be of different sizes that allows the surfer to glide on the water (Bil & Yılmaz, 2017). In addition to suitable wind conditions for windsurfing, a windsurfer must have components such as a board, mast and sail, foot strap, keel, fin, joint, trapeze and boom (Özkiper, 2018).

Rather than evaluating the tourism potential of Lake Van in general, the study aims to reveal the feasibility of kitesurfing and windsurfing, and if so, at what times of the year, by taking into account the wind conditions of Lake Van. Accordingly, it aims to determine the extent to which kitesurfing and windsurfing will contribute to the tourism potential of Lake Van. For this purpose, secondary data sources such as the Beaufort Wind Scale, Van Lake wind data, as well as kitesurfing and windsurfing wind scales were used in the content analysis.

2. Literature Review

2.1. Evaluation of Van Lake in Terms of Water-Based Adventure Activities

The Van Lake is surrounded by high mountains and plateaus. With a surface area of 15,441 sqm, Lake Van is the largest lake in Türkiye and ranks 15th among closed basin lakes in the world. The Lake Van is the largest soda lake in the world due to the high soda content of its water (Republic of Türkiye Ministry of Agriculture and Forestry, 2020: 7). The lake is 1641 m above sea level and its deepest point is 451 m (Akköprü et al., 2019). The volume and lev-

el of the Lake Van, may vary depending on the evaporation on the surface, the amount of precipitation and the stream flow in the basin (Yetmen, 2013: 188).

It is thought that direct water-based adventure activities such as fishing, water skiing, scuba diving, water skiing, wind surfing, canoeing can only be done in the sea. However, lakes and rivers can also have suitable conditions for water-based adventure activities. Regions where lakes are located can provide opportunities for water-based adventure activities such as picnicking, hunting, camping, bird watching, photography, cycling, hiking and trekking (Akpınar & Akbulut, 2007).

When evaluated in terms of tourism potential, the Lake Van has an important potential for visitors to swim. In fact, according to the annual evaluation results of the General Directorate of Public Health affiliated to the Ministry of Health, there are a total of 25 beaches suitable for swimming on the shores of Lake Van. 11 of these beaches are in the "Excellent" category for swimming, 5 in the "Good" category, 1 in the "Sufficient" category, 6 in the "Poor" category and 2 in the "New" category (https://yuzme.saglik.gov.tr/map/csbs.html). The lake also has significant potential for boating. Although the southern shores of the lake are particularly suitable for this activity, this potential is not being utilized as it should be due to the lack of investment in touristic tours. It has the potential to perform direct water-based activities such as canoeing, water skiing, rowing, sailing, angling and diving. When evaluated in terms of indirect water-based activities, the Van Lake area has an important potential for activities such as trekking, camping, cycling, photography and bird watching (Meriç & Bozkurt, 2017).

2.2. Beaufort Wind Scale and Wind Knowledge

As with kitesurfing, the presence of suitable wind conditions is as important as the necessary equipment and materials to experience windsurfing. For this reason, it is another important issue for both kitesurfers and windsurfers to have knowledge of wind. Because a surfer who does not use appropriate materials and equipment for the wind speed and does not have sufficient experience may be injured or even lose his/her life. Although the common power source of both adventure activities is wind, they differ in terms of wind speed. The most important reference for wind information in wind-powered adventure activities such as windsurfing, sailing and kitesurfing is the Beaufort Wind Scale. The scale was developed in 1805 (Meaden et al., 2007) by Sir Francis Beaufort, who was a Rear Admiral in the Royal Navy of the United Kingdom (Monmonier, 2005).

Table 1 : Beaufort Wind Scale

Bft. Scale Force	Wind in			WMO Wind Classification	Appearance of Wind Affects On the Water
	Mh/p	Knots	Km/s		
0	0-1	0-1	0-1	Calm	The surface of the water is as smooth as a mirror.
1	2-3	2-3	2-5	Light Air	Little ripples spread across the water's surface.
2	4-7	4-6	6-11	Light Breeze	Small rippling waves rise, with crests that shine like glass.
3	8-12	7.10	12-19	Gentle Breeze	Larger wavelets develop, with breaking crests and occasional whitecaps forming.
4	13-18	11-16	20-28	Moderate Breeze	Wave growth continues with increasing length and the appearance of whitecaps.
5	19-24	17-21	29-38	Fresh Breeze	Whitecaps form on developing wavelets, producing light spray.
6	25-31	22-27	39-49	Strong Breeze	Wave height increases, with prevalent whitecaps and wind-driven spray.
7	32-38	28-33	50-61	Moderate or Near Gale	Larger waves develop, and wind-blown foam begins to disperse from breaking wave crests.
8	39-46	34-40	62-74	Gale or Fresh Gale	Moderately large waves present, with wind-blown foam visible at the crests.
9	47-54	41-47	75-88	Strong Gale	Wave heights reaching 6 meters; seas rolling heavily with widespread foam formation. Blowing spray significantly reduces visibility.
10	55-63	48-55	89-102	Whole Gale or Storm	Waves like mountains rise, 6 to 9 meters tall, their crests curling and crashing. Foam covers the sea like snow, the deep rolls heavily beneath, and the horizon fades in spray.
11	64-72	56-63	103-117	Violent Storm	Waves like mountains rise, 9 to 14 meters tall, their crests crowned in white. Foam spreads wide, and the world fades behind a veil of spray.
12	73+	65+	118+	Hurricane	Wave heights exceed 14 meters. Foam and spray fill the air, whitening the sea; visibility is extremely poor.

Source: Burch,2017; Fleming 2019.

The Beaufort Wind Scale starts from 0 and ends at 12. While 0 represents the lowest wind speed, 12 represents the strongest wind speed. The scale also provides information about the effects of wind speed on water and land. Therefore, even if a person does not have an anemometer to measure wind speed, he/she can estimate the speed of the wind by watching the signs in the water, on the shore or on land. (see Table 1).

2.3. Kitesurfing

The man who brought kitesurfing to the history of sports was Cory Roeseler from Oregon State in the United States. Having fallen many times while windsurfing while trying to get over waves and land on the surface again, Roeseler came up with the idea of using a kite instead of a sail to make a softer landing. For this reason, Roeseler designed a kite that would lift him into the air and allow him to land softly on the surface of the water while surfing, thus taking the first step into kite surfing, which is a mixture of parachuting and windsurfing. Over time, kitesurfing has become one of the fastest growing water-based adventure activities in the world (Özbek, 2014).

A kite that is a mixture of a sail and a parachute, a control bar (handlebar) attached to this kite, specially produced strong ropes connecting the kite and the control bar, a board that allows the surfer to move on the water, and a trapeze attached to the surfer's waist for energy saving and control purposes constitute the basic components of kite surfing (Nebas & Heller, 2014; van Bergen et al., 2016; Demirkan et al., 2005:31-33). Kitesurfing, which is quite common in developed countries, started to be recognized in Türkiye in the early 2000s. The adrenaline and excitement it contains has led to an increasing interest in kitesurfing (Ceylan, et al. 2016).

There are clubs in Türkiye that provide kitesurfing training at different levels and are members of the Turkish Sailing Federation. The first step for a person who wants to do kitesurfing is to go through basic training, which lasts for 2 days and 6-8 hours. The first day training includes topics such as environmental information, water, hazards, basic kite skills, wind information, safety, wind window, ventilation theory and signals, kite surfing setup, filling the kite with wind - taking off - holding it in the air - landing, safety handling and parking, adjustments. The second day of training covers basic bodydrag, figure 8 downwind swimming, controlled bodydrag, water, beach, air theory, boarding, first ride, continuous power thrust, speed control and stopping (www.kitebasegokova.com). Kitesurfing is represented in Türkiye by the Turkish Sailing Federation. Kitesurfing training is provided in 28 schools affiliated with the Turkish Sailing Federation (Turkish Sailing Federation, 2018). The Çeşme (Alaçatı) coasts in İzmir, Gökova Gulf (Akyaka), Bodrum (Yalıkavak) and Marmaris in Muğla, Kuruçeşme and Kilyos coasts in İstanbul, Gökçeada and Kefalos Bay coasts in Çanakkale are the prominent destinations for kitesurfing in Türkiye (Yaşar, 2016).

For kitesurfing, the wind speed should be over 19 km/h. The most suitable wind speed for beginners in kitesurfing is between 20-38 km/h, which corresponds to the 4th and 5th Beaufort levels. The wind speed of 62-74 km/h that excites professional kite surfers corresponds to level 8 on the Beaufort

scale. No matter how experienced a surfer is, he/she should get out of the water before the wind speed reaches the 9th Beaufort level (Timo, 2024). In kitesurfing, kite sizes vary depending on the wind, the surfer's weight, and the wind speed. Table 2 shows the kite sizes and wind speeds that vary according to the surfer's weight.

Table 2 : Kitesurfing Size/Weight/Wind Speed Chart

Weight of Rider (kg)	**43**	**50**	**57**	**64**	**70**	**77**	**84**	**91**	**98**	**104**	**111**	**118**	**Wind Speed in (km/s)**
Size of the kite (m^2)	3	3	4	4	5	5	5	6	6	7	7	8	**63**
	3	4	4	5	5	6	7	7	8	8	9	9	**52**
	4	5	5	6	6	7	8	8	9	8	10	11	**44**
	4	5	6	7	7	8	9	9	10	11	12	12	**39**
	5	6	7	7	8	9	10	11	11	12	13	14	**35**
	6	6	7	8	9	10	11	12	13	14	14	15	**31**
	6	7	8	9	10	11	12	13	14	15	16	17	**28**
	7	8	9	10	11	12	13	14	15	16	17	18	**26**
	7	8	10	11	12	13	14	15	16	18	19	20	**24**
	8	9	10	12	13	14	15	16	18	19	20	21	**22**
	8	10	11	12	14	15	16	18	19	20	22	23	**20**
	9	10	12	13	15	16	17	19	20	22	23	24	**19**

Source: https://www.surfertoday.com/board-size-chart/kiteboard

2.4. Windsurfing

The emergence of windsurfing, one of the water-based soft adventure tourism activities, which is a combination of a surfboard and a sail, dates back to 1958. In 1958, 12-year-old Pete Chilvers designed his first windsurfing device at home and had his first windsurfing experience on Hayling Island in England. In 1964, Newman Darby from Pennsylvania added a different style to windsurfing by attaching a kite-like parachute to the board instead of a sail, unlike Chlivers' design. However, those who added commercial value to windsurfing were Jim Drake and Hoyle Schweitzer from California in 1968 (Oakley, 2023). Windsurfing began to attract attention around the world in the 1980s and was accepted as an Olympic sport at the 1984 Los Angeles Olympic Games (Sedlaczek, 2009; Aksu & Kayabalı, 2007).

Similar to kitesurfing, windsurfing consists of different components. One of these components is the board that allows the slide to move on the water surface. The upper part of the boards is designed to be rough to prevent the surfer's feet from slipping, while the lower part of the board is designed to be smooth to allow easy movement on the surface of the water. Depending on the

purpose of use, boards are differentiated as starting boards, formula boards, wave boards, freestyle boards, racing boards, slalom boards and tandem boards. The sail, another important component of windsurfing, is designed in different types and sizes depending on the purpose of use, such as beginner sail, wave sail, slalom sail, freestyle sail. Foot strap, fin, keel, mast, sail lifting strap, tandem, universal joint and boom are other components of windsurfing (Dant & Wheaton, 2007; Irish Sailing Association, 2007; Özkiper, 2018).

There are many sailing clubs and schools in Türkiye that can provide windsurfing training. For beginners, 3 hours of basic training is sufficient. The first stage of this basic training consists of topics such as wind information, material and equipment information, general safety information, and environmental information, and is conducted on land. The second stage of the training is the simulator training created by attaching a sail to the board on the beach. In this training, emphasis is placed on topics such as how the surfer gets on the board, his/her place and position on the board, how to remove a sail that has fallen into the water, the starting position, how to start moving by filling the sail with wind, how to make steering and turns. The third stage of the training includes using windsurfing in the water with the instructor, according to the theoretical and practical knowledge obtained in the first two stages of the training (www.fethiyesurfcenter.com).

Muğla (Datça, Akkaya location), İzmir (Alaçatı, Çeşme, Dikili-Çandarlı, Seferihisar, Urla-İçmeler, Güzelbahçe and Menderes), Antalya (Alanya), Çanakkale (Gökçeada) are among the most preferred destinations for windsurfing in Türkiye (www.flypgs.com; https://izmir.ktb.gov.tr/). Table 3 includes the experience that a surfer should have according to the wind speed, as well as the equipment that should be of appropriate size (Hart, 2015).

Table 3: Windsurfing Wind Speed Chart

Bft. Level	Wind Speed (km/h)	Wind Classification	Conditions for Windsurfing and Water State
1-2	1-11	Calm/Light Air/ Light Breeze	Perfect conditions for learning windsurfing. Wavelets like glass-like crests that don't break.
3	12-19	Gentle Breeze	While there are still suitable conditions for those trying windsurfing for the first time, these wind conditions are ideal for the use of a bigger sail as well as the use of harnesses and foot straps.
4	20-28	Gentle Breeze	It offers suitable conditions for those who want to improve themselves as long as they use small-sized sails. Larger-sized boards are easier to move on the water surface.
5	29-38	Moderate Breeze	The wind speed is quite high for beginners. However, there are suitable conditions for water take-off exercises, freestyle, and gybes.
6	39-49	Fresh Breeze	These are conditions that require the surfer to definitely know waterstarts. Boards with a volume of over 120ltrs will start to bpunce out of control. These are perfect conditions for surfers who are experienced in windsurfing.
7	50-61	Moderate or Near Gale	These are conditions that allow experienced surfers to make enjoyable gybes. However, the sail rig must be below 4.5sq m.
8	62-74	Gale or Fresh Gale	These are the conditions where experienced windsurfers can windsurf in a controlled manner by using sails and boards of appropriate size for the wind strength. However, such conditions can change at any time and therefore pose serious security risks.
9	75-88	Strong Gale	These are the weather conditions that only experienced surfers can windsurf using sail as small as 3sq m of sail and boards as small as 60ltr. This wind speed is strong enough to sweep the sail rig and board away if the surfer falls.
10	89-102	Whole Gale or Storm	Even in these conditions, which are severe enough to cause structural damage to buildings and trees according to weather reports, it is possible to see experienced windsurfers in the water in controlled situations. Professional races, sailing races and speed races are organized in such wind conditions. Those who want to windsurf in such conditions are advised to stay close to the shore.

Source: Hart, 2015.

3. Metodology

In the literature, it is possible to come across studies on tourism activities carried out in Lake Van. However, these studies address the issue in a general framework, in other words, they do not address it in a more specific way. This study aims to reveal the potential of kitesurfing and windsurfing in the Lake Van on the basis of the Beaufort Wind Scale.

Secondary data was used to analyze whether Lake Van has potential for kitesurfing and windsurfing. For this purpose, wind speed data of the last 5 years in Van province were compiled on a monthly basis. These data were compared with the values in the wind speed tables suitable for kitesurfing and windsurfing and the suitability of the Lake Van for kitesurfing and windsurfing was evaluated. The data were analyzed using document analysis method. Document analysis is a qualitative research method that involves the systematic and detailed examination of written materials (Wach, 2013). Document analysis is a systematic qualitative method used to examine and evaluate both printed and electronic documents. Similar to other qualitative research methods, document analysis involves the examination and interpretation of data to extract meaning, build understanding of the subject, and generate empirical insights (Corbin & Strauss, 2008).

The most important factor for kitesurfing and windsurfing is wind speed conditions. In order to determine the suitability of Lake Van for kitesurfing and windsurfing within the framework of the Beaufort Wind Scale, Van Province's wind speed data must be known. For this reason, the wind speed data of Lake Van for the last 5 years (between 2020 and 2024) were compiled by month using the www.havaturkiye.com website (see Table 4). When Table 4 is examined, it is seen that the average wind speed in Lake Van in January between 2020-2024 is 8.1 km/h, the average wind speed in February is 8.5 km/h, the average wind speed in March is 10.5 km/h, the average wind speed in April is 10.9 km/h, the average wind speed in May is 10.9 km/h, the average wind speed in June is 10.2 km/h, the average wind speed in July is 10. km/h, the average wind speed in August is 10.2 km/h, the average wind speed in September is 9.4 km/h, the average wind speed in October is 8.9 km/h, the average wind speed in November is 8.6 km/h, and the average wind speed in December is 8.2 km/h. The average wind speed in Lake Van was determined as 9.2 km/h in 2020, 10.2 km/h in 2021, 9.7 km/h in 2022, 9.7 km/h in 2023, and 9.3 km/h in 2024.

Table 4 : Bft. Level Wind Speed (km/h)

Month/Year	J	F	M	A	M	J	J	A	S	O	N	D
2020	7.6	8.4	8.6	9.6	11.7	10.3	10.2	10.6	8.3	8.3	9.3	7.6
2021	8.9	8.1	12.5	12.7	10.7	10.8	10.8	10.8	10.3	9.4	7.4	10.4
2022	9.8	7.6	11.7	10.7	11.4	10.9	10.2	10.3	9.5	9.6	8.3	6.7
2023	6.7	9.9	10.3	12.6	11.9	10.1	10.0	9.9	9.2	8.3	9.5	8.4
2024	7.7	8.9	9.2	9.1	11.6	9.1	10.5	9.7	10.1	9.3	8.9	8.1
Monthly Average Wind Speed (km/h)	**8.1**	**8.5**	**10.5**	**10.9**	**11.4**	**10.2**	**10.3**	**10.2**	**9.4**	**8.9**	**8.6**	**8.2**

Source: Compiled from the data from https://www.havaturkiye.com

4. Findings

By evaluating the Beaufort Wind Scale (see Table 1), suitable wind speed for kite surfing (see Table 2), suitable wind speed for windsurfing (see Table 3), and monthly wind data for the last 5 years of Lake Van (see Table 4), the values in Table 5 for kitesurfing and Table 6 for windsurfing were created.

4.1. Kitesurfing

Table 5 consists of six columns. Columns A and B contain data on the 5-year wind speed of Lake Van. Column C of the table expresses the wind speed level of Lake Van in the relevant month on the Beaufort Wind Scale. Column D represents the wind classification corresponding to the Beaufort level. Column E shows the range of wind speeds required for kitesurfing. Column F is designed to determine whether the wind speed of Lake Van is suitable for kitesurfing.

Table 5: Evaluation of Van Lake Wind Speed in Terms of Kite Surfing

Van Lake Monthly Wind Speed Average for 2020-2024		**Van Lake Monthly Wind Speed Average Beaufort Scale Equivalent**		**Suitable Wind Speed Range for Kitesurfing**	**Suitability of Van Lake Wind Speed for Kitesurfing**
		Level	**Wind Classification**		
Column A	**Column B**	**Column C**	**Column D**	**Column E**	**Column F**
Jan.	8.1 km/h	2	Light Breeze	19-63 km/h	Not Applicable
Feb.	8.5 km/h	2	Light Breeze	19-63 km/h	Not Applicable
Mar.	10.5 km/h	2	Light Breeze	19-63 km/h	Not Applicable
Apr.	10.9 km/h	2	Light Breeze	19-63 km/h	Not Applicable

May	11.4 km/h	2	Light Breeze	19-63 km/h	Not Applicable
Jun.	10.2 km/h	2	Light Breeze	19-63 km/h	Not Applicable
Jul.	10.3 km/h	2	Light Breeze	19-63 km/h	Not Applicable
Aug.	10.2 km/h	2	Light Breeze	19-63 km/h	Not Applicable
Sept.	9.4 km/h	2	Light Breeze	19-63 km/h	Not Applicable
Oct.	8.9 km/h	2	Light Breeze	19-63 km/h	Not Applicable
Nov.	8.6 km/h	2	Light Breeze	19-63 km/h	Not Applicable
Dec.	8.2 km/h	2	Light Breeze	19-63 km/h	Not Applicable
Aug.	10.2 km/h	2	Light Breeze	19-63 km/h	Not Applicable
Sept.	9.4 km/h	2	Light Breeze	19-63 km/h	Not Applicable

Source: Created by authour

A certain wind speed is required for kitesurfing, because the surfer's movement on the water depends on the kite being filled with wind. Column E of Table 5 and Table 2 contain the values for wind speed required for kitesurfing. Accordingly, for kitesurfing, the wind speed must be at least 19 km/h, and its equivalent in Beaufort level is "3", and the wind classification is Sweet Wind. When the wind data of Lake Van is examined, it is seen that the lowest wind speed average is 8.1 km/h and the highest wind speed average is 11.4 km/h. The Beaufort level between 8.1 km/h and 11.4 km/h, "2" is and the wind classification is Light Wind. Considering the values in the table, it is seen that the wind conditions of Lake Van are insufficient to meet the wind conditions required for kitesurfing. In this case, it is obvious that Lake Van does not have suitable wind speeds for kitesurfing in any month of the year, except for exceptional cases. Exceptional circumstances here can refer to periods caused by global warming that can occur outside seasonal norms and may be limited to a few days. However, this situation will not be sufficient to attract kitesurfing enthusiasts to the region or to organize national or international kitesurfing competitions in Lake Van, so kitesurfing will not contribute to Lake Van in terms of tourism.

4.2. Windsurfing

Windsurfing and kitesurfing are adventure activities that are similar in terms of the equipment used and the environment in which they are performed, and the wind is the driving force behind the surfer. However, windsurfing and kitesurfing differ in terms of the wind speed required. In other words, a wind speed that is insufficient for kitesurfing may be sufficient for windsurfing. Columns A and B of Table 6 contain data on the 5-year wind speed of Lake Van. Column C of the table expresses the wind speed level of Lake Van in the relevant month on the Beaufort Wind Scale. Column D represents the wind classification corresponding to the Beaufort level. Column E shows the range of wind speeds required for windsurfing. Column F is designed to determine whether the wind speed of Lake Van is suitable for windsurfing.

Table 6: Evaluation of Van Lake Wind Speed in Terms of Windsurfing

Van Lake Monthly Wind Speed Average for 2020-2024		**Van Lake Monthly Wind Speed Average Beaufort Scale Equivalent**		**Suitable Wind Speed Range for Windsurfing**	**Suitability of Van Lake Wind Speed for Windsurfing**
		Level	**Wind Classification**		
Column A	**Column B**	**Column C**	**Column D**	**Column E**	**Column F**
Jan.	8.1 km/h	1-2	Breeze / Light Breeze	1-102 km/h	Convinient For Windsurfing Beginners
Feb.	8.5 km/h	1-2	Breeze / Light Breeze	1-102 km/h	Convinient For Windsurfing Beginners
Mar.	10.5 km/h	1-2	Breeze / Light Breeze	1-102 km/h	Convinient For Windsurfing Beginners
Apr.	10.9 km/h	1-2	Breeze / Light Breeze	1-102 km/h	Convinient For Windsurfing Beginners
May	11.4 km/h	1-2	Breeze / Light Breeze	1-102 km/h	Convinient For Windsurfing Beginners
Jun.	10.2 km/h	1-2	Breeze / Light Breeze	1-102 km/h	Convinient For Windsurfing Beginners
Jul.	10.3 km/h	1-2	Breeze / Light Breeze	1-102 km/h	Convinient For Windsurfing Beginners
Aug.	10.2 km/h	1-2	Breeze / Light Breeze	1-102 km/h	Convinient For Windsurfing Beginners
Sept.	9.4 km/h	1-2	Breeze / Light Breeze	1-102 km/h	Convinient For Windsurfing Beginners
Oct.	8.9 km/h	1-2	Breeze / Light Breeze	1-102 km/h	Convinient For Windsurfing Beginners
Nov.	8.6 km/h	1-2	Breeze / Light Breeze	1-102 km/h	Convinient For Windsurfing Beginners
Dec.	8.2 km/h	1-2	Breeze / Light Breeze	1-102 km/h	Convinient For Windsurfing Beginners

Source: Created by authour

When the monthly wind speed values of Lake Van are examined in Table 6, it can be seen that they correspond to the 1st and 2nd Beaufort levels, and the wind at these levels is in the form of Breeze, Light Breeze. In column E, the wind speed required for windsurfing is stated in the range of 1 km/h to 102 km/h. When Table 3, which divides the wind range of 1 km/h to 102 km/h into levels for windsurfing, is examined, it is seen that winds at speeds of 1-11 km/h offer suitable conditions for those learning windsurfing. In light of this data, when the wind data of Lake Van for the last 5 years are taken into consideration, it can be said that the wind conditions, especially in March, April, May, June, July, August and September, provide suitable conditions for those who want to learn windsurfing. When this situation is evaluated within the framework of tourism, it is obvious that Lake Van does not have sufficient potential for foreign tourists who are windsurfing enthusiasts or for organizing national and international windsurfing competitions. However, there is a suitable potential for local visitors from the regions close to Lake Van who are interested in learning windsurfing.

5. Discussion and Conclusion

Each potential that is not evaluated means a loss. This also applies to the tourism sector. The tourism sector is an important source of income in the balance of payments of countries. For this reason, many countries are making efforts to gain a greater share of the world tourism market by evaluating their tourism potential. Its historical, cultural and natural richness, having coasts on three different seas, rivers, lakes and the fact that different climates can be experienced at the same time carry Türkiye to an important point in terms of tourism. Thanks to these features, Türkiye is among the rare countries that can appeal to different types of tourism such as adventure tourism, cultural tourism, religious tourism and yacht tourism.

Adventure tourism is a type of tourism that includes hard and soft adventure activities due to the risk and adrenaline it contains. These adventure activities are classified as land, air and water based adventure activities. In addition to having coasts on three seas, the fact that it has rivers with different flow rates and lakes with different characteristics makes Türkiye an important destination for water-based adventure activities. Lake Van, an important element of the Lake Van Basin, is among the lakes whose potential should be evaluated in terms of water-based adventure activities. Lake Van has suitable conditions for water-based adventure activities such as sailing, scuba diving, water skiing, as well as photography, camping, and trekking.

In the study, the kitesurfing and windsurfing potential of Lake Van was determined. For this purpose, secondary data sources including the last 5 years of wind speed data of Lake Van, Beaufort wind scale, wind scales for

kitesurfing and windsurfing were used. datas were analyzed by using the document analysis, one of the qualitative analysis methods, was used in the analysis of data.

As a result of the evaluation of the data, it was concluded that the wind conditions of Lake Van are not sufficient for kitesurfing. When the wind conditions of the Lake Van were evaluated in terms of windsurfing, it was concluded that Lake Van meets the wind conditions required for those who want to learn windsurfing.

Van's lack of a coastline further enhances Lake Van's tourism importance. Although Lake Van lacks suitable wind conditions for kitesurfing, it could be developed into a tourist destination by prioritizing water-based adventure activities such as scuba diving, parasailing, and canoeing, and by making the necessary investments.

Lake Van, with its wind conditions suitable only for beginners, also holds significant potential for domestic tourism. Opening windsurfing courses offering beginner-level training would be a significant step toward increasing interest in windsurfing among the local population.

Investments in windsurfing and other water-based adventure activities on Lake Van will provide low-income residents who cannot afford to vacation in coastal cities with the opportunity to experience these activities. In other words, it will constitute a significant contribution to social tourism. While it may not seem related, initiatives aimed at revitalizing Lake Van tourism will also indirectly contribute to the "Terror-Free Turkey Process".

For many years, due to terrorist attacks, Eastern and Southeastern Anatolia, despite their rich tourism resources, have not received their due share of tourism revenues, which is an important element in regional development. With the end of terrorism and the Terror-Free Türkiye Process, one of the most important issues of recent times, the region will become even more attractive to many investors, especially tourism investors. Making tourism investments depends on clearly determining the tourism potential of the region. For this reason, academic studies can give decision-makers ideas on these issues and make it easier for them to make decisions. Analysis of the data obtained in the study revealed that Lake Van does not have suitable wind conditions for kitesurfing. Analysis of windsurfing, however, revealed that Lake Van has suitable wind conditions for beginner-level windsurfing. The results of the study will serve as a guide for tourism decision-makers in investing in the region. Establishing a beginner-level windsurfing course will help introduce landlocked Van residents to this water-based activity. Diversifying water-based activities on Lake Van, particularly windsurfing, will also play a significant role in meeting the expectations of low-income residents who are unable to vacation in coastal cities.

The Beaufort Scale is a reference used to measure wind strength and is widely used by sailors. The Beaufort Scale, which shows changes in wind speed on both land and the sea surface, includes many visual cues, from wavelength to foam formation on the sea surface. Especially the experience of water-based soft and hard adventure activities such as parasailing, windsurfing, witesurfing within the scope of adventure tourism depends on the presence of wind at a certain speed. This study investigates the Kitesurfing and Windsurfing potential of Lake Van by evaluating the Beaufort Scale, wind scales that show suitable wind speed for kitesurfing and windsurfing, and periodic wind data of Lake Van. Secondary data obtained for the purpose of the research were analyzed using document analysis, which is a qualitative research method. Türkiye is among the few countries with numerous natural and unnatural lakes. This study serves as a guide for exploring the suitability of these lakes for water-based, wind-based adventure activities.

The most significant limitation of the study is that the last five years of Lake Van wind data were evaluated. Another limitation of the study can be considered the abnormal climatic conditions experienced due to climate change due to global warming. Considering Türkiye's numerous natural and unnatural lakes, it can be said that it possesses a significant resource that has not yet been utilized for tourism. The study will contribute to future studies aimed at determining the wind-based water sports potential of lakes located in different regions of Türkiye.

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Chapter 5

MEDICAL TOURISM AROUND THE WORLD AND IN TURKEY: THE CURRENT SITUATION, POTENTIAL AND DEVELOPMENT STRATEGIES

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Introduction:

Tourism encompasses more than just holidays and accommodation; it is a multifaceted phenomenon with health, cultural and economic dimensions. Derived from the Latin verb 'tornus', tourism refers to the act of travelling from one place to another and then returning (Sezgin & Ünüvar, 2008; Yıldız, 2011). In this context, tourism activities generally involve visitors temporarily travelling from one place to another and making use of various services there. One of the sub-branches of tourism today is medical tourism, which encompasses individuals travelling to other countries for treatment or health and wellness purposes. Globalisation, increased transportation options, an ageing population, the diversification of healthcare services, an increase in specialised surgical procedures, advances in healthcare technologies and problems experienced in healthcare systems worldwide have all contributed to the increased interest in medical tourism, causing it to become a rapidly growing sector (Connell, 2013; Lunt et al., 2011).

Medical Tourism

Medical tourism is defined as travelling from one's country of residence to another to receive treatment, surgery, rehabilitation or other health services (Bookman & Bookman, 2007). The process encompasses not only medical services, but also accommodation, transport, cultural adaptation, and interactions between patients and their environment. As a broader concept, medical tourism involves travelling from one's place of residence for at least 24 hours to another location for the purpose of protecting, improving or treating one's health (Carrera & Bridges, 2006). Connell (2006) defines medical tourism as 'the travel of people seeking direct medical intervention'.

Medical tourism emerged from a collaboration between the health and tourism sectors, providing specialised care at an affordable price for patients requiring surgery or other specialised medical interventions. Both sectors play a critical role in this process (Barca, Akdeve & Balay, 2013).

Medical tourism is defined as a segment comprising individuals who travel internationally to receive healthcare services. It offers a wide range of services, including general health checks, dental treatments, cosmetic surgery, cardiovascular treatments, orthopaedic surgery, fertility treatments, and organ transplants (Connell, 2011).

There are many reasons for the rapid growth of medical tourism. Firstly, healthcare services in developed countries are quite expensive. This makes it an attractive option for individuals who wish to receive healthcare services in countries where costs are lower. For instance, the cost of surgical procedures in the United States is significantly higher than in countries such as India or Thailand (Horowitz, Rosensweig & Jones, 2007).

Waiting times are also an important factor. Long waiting times in countries' healthcare systems are driving patients to seek treatment in other countries. Furthermore, certain treatments and procedures may be limited or unavailable in some countries. This situation encourages patients to travel to countries where these services are offered (Helble, 2011).

Medical tourism is of great economic and social importance for individuals seeking treatment and for the countries providing these services, and it also offers numerous advantages. Patients can access high-quality healthcare at a lower cost and also have the opportunity to discover a new country (Lunt et al., 2011). From the perspective of countries, medical tourism diversifies their economies and develops their healthcare infrastructure (Smith and Puczkó, 2009).

Countries such as Turkey play an important role in medical tourism with their modern medical facilities, qualified healthcare professionals, and affordable treatment options. However, it is important to be aware of the challenges as well as the advantages of this type of tourism. It is important for patients who choose medical tourism to make informed decisions about the advantages and challenges listed below.

Advantages of medical tourism

Lower costs: One of the most obvious advantages of medical tourism is that treatment costs are generally lower. The high cost of healthcare in developed countries is driving patients to countries that offer more affordable treatment options. For instance, a heart bypass operation can cost around £80,000 in the US, whereas in India, the same procedure can be performed for between £7,000 and £14,000 (Horowitz, Rosensweig & Jones, 2007).

Short waiting times: Long waiting times in the healthcare systems of developed countries are a significant factor encouraging patients to travel to other countries for treatment. Medical tourism enables patients to receive treatment more quickly (Helble, 2011).

High quality and advanced technology: Many medical tourism destinations offer state-of-the-art medical facilities staffed by highly qualified healthcare professionals. Centres specialising in specific treatments are particularly renowned worldwide. This ensures that patients have access to high-quality healthcare services (Connell, 2011).

Combination of Holiday and Treatment: Medical tourism destinations are often famous for their tourist attractions. This gives patients the chance to explore a new country and enjoy a holiday while receiving treatment. This makes the treatment process more appealing and enjoyable. For instance, patients who travel to Turkey for cosmetic surgery or dental treatment can explore the country's historical and natural attractions (Kovacs and Szöcska, 2013).

Challenges of Medical Tourism

Cultural and language barriers: One of the biggest challenges in medical tourism is dealing with cultural differences and language barriers. Patients may experience difficulties communicating and understanding the treatment process in a foreign country due to language and cultural differences. This can result in misunderstandings and dissatisfaction during treatment (Lunt et al., 2011).

Post-treatment care: Post-treatment care is an important issue for patients receiving treatment abroad. In cases where constant monitoring is required during complications or the recovery process, patients may find it difficult to receive this care in their home country. This can have a negative impact on the integrity and effectiveness of the treatment process (Horowitz, Rosensweig & Jones, 2007).

Quality and safety of healthcare services: Concerns may exist regarding the quality and safety of healthcare services in medical tourism. Healthcare standards and practices differ from country to country. Therefore, patients should feel confident that the healthcare services they receive are of a high standard and safe. Incorrect or inadequate treatment can lead to serious health problems (Connell, 2011)

Ethical and legal issues: Medical tourism can also give rise to ethical and legal issues. In sensitive areas such as organ transplantation, for example, legal regulations and ethical standards can differ greatly from one country to another. This can lead to disputes and legal issues between patients and healthcare providers (Helble, 2011).

Data on the structure of the global healthcare sector influences the groth rate of the medical tourism industry, the location of global medical tourism centres, the treatments that attract investment and the flow of international patients. Metrics such as the number of hospitals, doctors, and beds per capita, as well as medical diagnosis and treatment technologies, directly influence the functioning of a country's healthcare system infrastructure and its potential to attract international patients. Conversely, metrics such as access to healthcare services, operating fee rates and out-of-pocket healthcare expenditure increase the number of patients visiting another country for treatment (Bahar & Akyürek, 2022).

The factors encouraging medical tourism around the world can be divided into two categories: attractive and repulsive. Attractive factors for medical tourism include:

- The comfort provided by the destination and the target institution.
- The infrastructure for medical tourism.

- Political and social stability.
- The facilities provided by the exchange rate.
- The number of doctors and the reputation of hospitals.
- Accredited healthcare institutions.
- Low healthcare service fees.

The driving factors in medical tourism are listed below.

- Difficulties accessing healthcare services and deficiencies in the healthcare system in the country of residence.
- Lack of confidence in the healthcare system.
- Limited treatment options.
- Inadequate insurance coverage.

Types of Medical Tourism

Nowadays, people travel not only for medical reasons, but also to find tranquillity and relaxation. In response to this growing demand, countries have begun to offer medical services alongside accommodation and tourism services. Medical tourism is defined as travelling to receive specific treatment to improve physical, mental or spiritual health (Zhong et al., 2021).

Medical tourism consists of various subcategories, including wellness and spa tourism, thermal tourism, rehabilitation tourism, senior tourism and disabled tourism. Each type is designed to meet different health needs and aims to improve individuals' physical and mental well-being. Together, these categories demonstrate the multifaceted nature of medical tourism and how it is structured to meet individuals' diverse health needs. This diversity contributes to the sector's growing demand by enabling individuals to address both their health and holiday needs simultaneously.

Factors Affecting Medical Tourism

The main factors influencing the growth and spread of medical tourism are explained below.

Economic factors: Treatment costs, exchange rates, and the general economic situation can have a significant impact on medical tourism. High healthcare costs in developed countries can encourage patients to seek treatment in countries where prices are more affordable (Bookman and Bookman, 2007).

Insurance coverage and healthcare policies: Inadequate health insurance coverage and high healthcare expenditure cause patients to seek more eco-

nomical services. Furthermore, some insurance companies and employers promote more affordable treatment options abroad (Connell, 2011).

Globalisation and information flow: globalisation accelerates the flow of information, making it easier for patients to learn about healthcare services worldwide. The internet and digital platforms help patients to research and decide on treatment options available abroad. Online forums, patient reviews and medical tourism agencies empower patients to make informed decisions (Lunt et al., 2011).

Ageing population: In developed countries, an ageing population is increasing demand for healthcare services. Elderly patients are turning to countries that offer healthcare with shorter waiting times and lower costs. This contributes to the growth of medical tourism (Helble, 2011).

Increase in chronic diseases: The growing prevalence of chronic diseases is another factor that contributes to the popularity of medical tourism. Countries offering affordable, high-quality treatment for chronic diseases such as diabetes, heart disease and obesity are in high demand (Horowitz, Rosensweig & Jones, 2007).

Quality of Medical Services: The quality of healthcare services and accreditation status in the destination country are important factors. Accreditations such as JCI (Joint Commission International) boost patient confidence (Lunt et al., 2011).

Technological infrastructure: Hospitals and clinics that are equipped with advanced medical technology are better able to attract medical tourists (Connell, 2006). This ensures that patients have access to the most up-to-date and effective treatment methods. Technology provides significant opportunities and advantages for medical tourists, particularly with regard to complex surgical operations and advanced diagnostic methods (Smith and Puczkó, 2009).

Legal Regulations and Policies: The development of the health tourism sector is influenced by countries' legal regulations and incentive policies (Smith et al., 2011).

Geographical location and transport: A country's geographical location, transport options and visa requirements influence the preferences of medical tourists (Horowitz, Rosensweig and Jones, 2007).

Cultural and language factors: Patients' preferences are influenced by cultural affinity and the absence of language barriers (Bookman and Bookman, 2007).

Waiting times: Long waiting times for healthcare services due to the way countries organise their healthcare systems can lead patients to seek treatment in other countries (Lunt et al., 2011).

Promotion and marketing: The international promotion and marketing activities of countries and healthcare institutions influence medical tourism (Connell, 2013).

Tourism infrastructure: The availability of accommodation, the state of the general tourism infrastructure, and the range of additional services influence the preferences of medical tourists (Smith et al., 2011).

Political stability and security: The political stability and overall security situation of the destination country are important factors in medical tourists' decision-making (Bookman and Bookman, 2007).

Agents and brokers: Medical tourism agents and brokers play a key role in facilitating treatment for patients abroad. They provide information on treatment options, doctors, hospitals and accommodation, and organise travel arrangements. These services make the process of receiving treatment abroad easier and safer for patients (Horowitz, Rosensweig & Jones, 2007).

Wellness and rehabilitation services: Medical tourism encompasses not only surgical and treatment services, but also wellness, rehabilitation, and spa services. Wellness tourism enhances the appeal of medical tourism by offering patients the opportunity to rest and rejuvenate during treatment. Such services can contribute to patients' physical and mental recovery (Smith and Puczkó, 2009).

These factors have contributed to the rapid growth and popularity of medical tourism worldwide. Medical tourism is expected to continue growing in the future due to these influences. They are fundamental to the development and direction of health tourism. Countries and healthcare institutions should therefore develop their strategies by taking these factors into account.

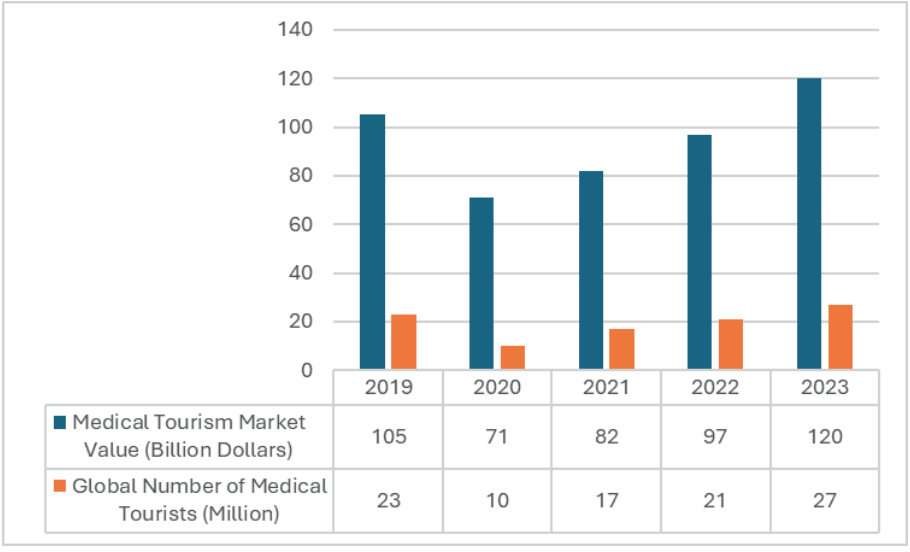
Medical Tourism in the World and Türkiye

Research into the history of medical tourism shows that it has emerged at various points throughout history. For instance, research by Aydın indicates that medical tourism has existed for a considerable amount of time. During the ancient Greek empire, for instance, patients travelled to Mediterranean countries for thermal water treatments. After the 18th century, wealthy Europeans travelled to the Nile for spa treatments. In the 21st century, patients travel to destinations offering cheaper treatment and shorter waiting times (Aydın, 2012: 93). The use of thermal resources dates back to ancient times. For instance, thermal waters were utilised for therapeutic purposes during the ancient Greek and Roman periods (Öztürk & Bayat, 2011).

The discovery of the New World created new opportunities for health tourists in Europe. During the 17th century, English and Dutch colonists constructed wooden cabins near mineral water sources. During this period, it

also became apparent that Native Americans were highly skilled in herbal medicine. Their knowledge of herbal medicine was on a par with that found in Europe, Asia and Africa (Gülen and Demirci, 2012: 43).

In the twenty-first century, medical tourism has become an important part of the global health sector. There has been an increase in travel from developed countries to developing or underdeveloped countries for the purpose of receiving healthcare. Connell's 2006 study emphasises the quality of health tourism services in these countries with the phrase 'first world service at third world costs'. Medical tourists travel for treatment in areas such as cardiology, orthopaedics, traumatology, oncology, aesthetic and plastic surgery, IVF, dentistry and ophthalmology (Karakoç, 2017: 25). Every year, millions of people travel abroad to receive medical treatment. According to the 2020–21 Medical Tourism Index, the world's best destinations for medical tourism are Canada, Singapore, Japan, Spain and the United Kingdom. Other popular destinations include Thailand, India, Malaysia, Singapore, Turkey and Mexico. These countries offer affordable, high-quality healthcare services. Health tourism makes an important contribution to the destination countries' economies: for example, Thailand's revenue from health tourism amounted to over US$600 million in 2018 (Grant Thornton, 2023). Thailand's revenue from health tourism, for example, amounted to over US$600 million in 2018 (Grant Thornton, 2023). Figure 1 shows the market value of medical tourism for the period 2019–2023.



	2019	2020	2021	2022	2023
Medical Tourism Market Value (Billion Dollars)	105	71	82	97	120
Global Number of Medical Tourists (Million)	23	10	17	21	27

Figure 1. *The Market Value of Medical Tourism (2019-2023) (Grant Thornton, 2023)*

Examining Figure 1 reveals that the value of the medical tourism market declined to $97 billion in 2022. This is believed to be due to travel restrictions and postponed medical operations caused by the pandemic.

According to the Allied Market Research report (2021), the global medical tourism market is expected to reach $273.72 billion by 2027. The following services are expected to become more prominent in the future of medical tourism:

- Increase in digital health services
- Sustainable and environmentally friendly practices
- Personalised medicine practices
- Elderly and long-term care services (Fetscherin and Stephano, 2016).

Turkey also has significant potential in terms of medical tourism. The medical tourism sector has grown to a considerable size. In 2019, 701,046 people came to Turkey for medical treatment, generating revenue of US$1.492 billion. The number of tourists coming to Turkey for healthcare services increases every year. Figure 2 and Figure 3 present the number of patients coming to Turkey for medical tourism and the associated revenues for the years 2020–2024.

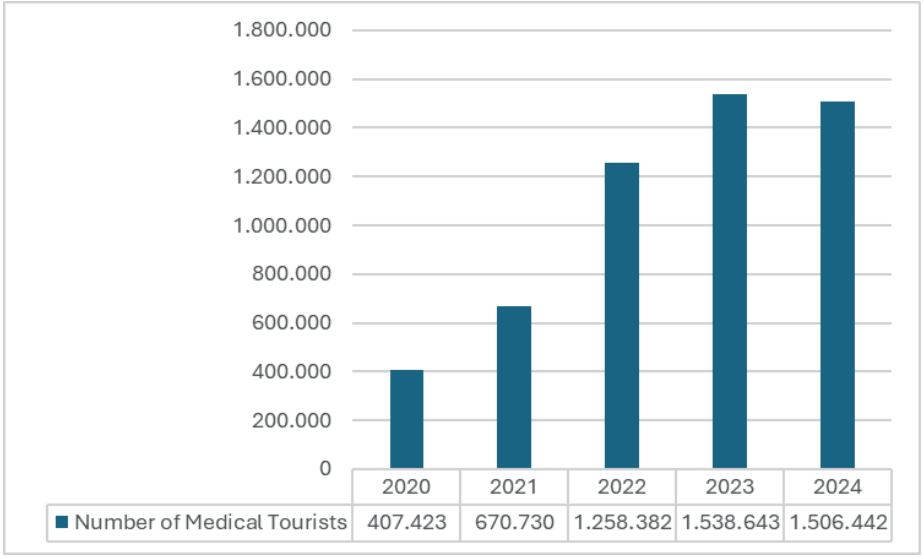


Figure 2. *The Number of Medical Tourists Coming to Türkiye (2020-2024)*

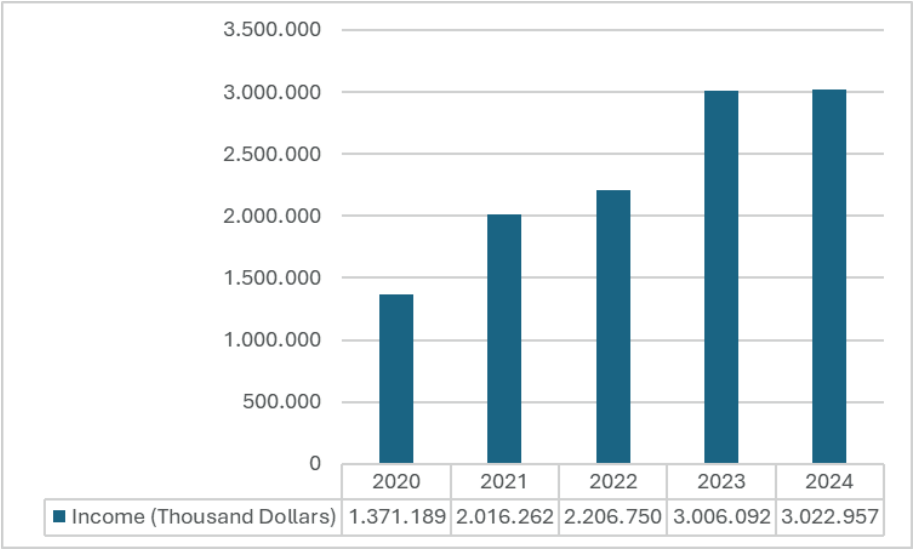


Figure 3. *Türkiye Medical Tourism Revenues (2020-2024)*

In the second quarter of 2025: (April–June), a total of 733,798 people visited our country to receive healthcare services. The revenue generated from healthcare tourism during this period amounted to 1,392,762 thousand US dollars. (USHAŞ, 2025). The most popular specialisms among international patients were, in order of popularity: gynaecology, internal medicine, ophthalmology, medical biochemistry, general surgery, dentistry, orthopaedics and traumatology, infectious diseases and ear, nose and throat. Turkey's medical tourism revenue includes not only healthcare expenditure, but also other expenses such as accommodation, transport, food and drink. This enables medical tourism to contribute to the country's economy across a wide range of sectors (Bélend & Zarzeczny, 2018). Turkey stands out for its modern hospitals, highly qualified healthcare professionals and affordable treatment options. It has become a popular destination for international patients seeking aesthetic and plastic surgery, hair transplantation, dental treatment, treatment for eye diseases and orthopaedic surgery (Kovacs and Szöcska, 2013). In recent years, it has made significant developments to its healthcare infrastructure. As of 2023, 158 private medical centres, 1,184 clinics, 777 healthcare facilities, 612 hospitals and 659 intermediary organisations are authorised by the Turkish Ministry of Health to provide international health tourism services (Directorate General of Health Tourism, 2023). Modern medical facilities and hospitals equipped with advanced technology are available throughout the country. High-quality healthcare services that meet international standards are provided, particularly in major cities such as Istanbul, Ankara, Izmir, and

Antalya (Kovacs and Szocska, 2013). Doctors, nurses and other healthcare professionals in Turkey are trained to provide healthcare services in accordance with international standards. This increases Turkey's competitiveness in medical tourism (Dunets et al., 2020). Furthermore, Turkey is in a competitive position in terms of the cost of healthcare services. It offers affordable treatment options for cosmetic surgery, hair transplantation, dental treatment, orthopaedic surgery, and cardiovascular treatment. These options are particularly attractive and advantageous for patients from Western Europe, the Middle East, and North Africa (Erdoğan & Aklanoğlu, 2008).

Furthermore, Turkey's geographical location means it possesses natural, historical and cultural riches that very few countries can boast. This ensures the further development of the Turkish tourism sector and the effective use of its resources. It is therefore anticipated that the sector will grow significantly in terms of both revenue and employment (Demirel and Şahin, 2023: 309). Popular tourist destinations such as Istanbul, Cappadocia, Pamukkale and Antalya are particularly attractive to medical tourists (Bélend and Zarzeczny, 2018).

Strategies to increase medical tourism potential

Medical tourism plays a significant role in the global healthcare market. It is predicted to continue growing in the future due to its economic benefits and its potential to improve access to healthcare services. The main factors that will support the growth of the medical tourism sector are the increase in international patient flow, the improvement of healthcare infrastructure in developing countries, and the growing demand for global healthcare services. To increase the potential of medical tourism, which is expected to grow further in the future both globally and in Turkey, certain strategies must be implemented. These can be summarised as follows:

- Infrastructure and technological investments in target countries
- International promotion and marketing activities
- Training qualified personnel
- Legal regulations
- Ethical standards

Infrastructure and technology investments: The infrastructure and technological equipment of medical tourism facilities must be continuously updated and modernised.

International promotion and marketing: The potential of medical tourism should be promoted worldwide through digital marketing strategies, social media campaigns and attendance at international tourism fairs.

Training qualified personnel: Training programmes should be organised to ensure that qualified healthcare professionals are trained to work in this field.

Legal and ethical standards: Legal and ethical regulations should be established in line with international standards and implemented.

Specifically in Turkey, challenges in medical tourism, such as language and communication issues, cultural differences, legal regulations and insurance coverage, quality and safety standards, post-treatment care and a lack of information, are considered to be surmountable with specific strategies (Yılmaz, 2022; Üstün & Uslu, 2022; Şafak, Yılmaz & Karamustafa, 2022; Yalman & Arık, 2025; Öcel & Karaca, 2023).

Language and communication issues: Medical tourists may experience difficulties during the treatment process if they do not speak Turkish, as it can be challenging to communicate effectively with doctors and healthcare personnel. To address this, hospitals and clinics should employ more multilingual staff and provide professional translation services. Patients should also be provided with multilingual information brochures, websites, and multilingual telephone helplines.

Cultural differences: Different cultural norms and habits can make it difficult for patients to adapt to the treatment process, which can negatively affect satisfaction levels. Cultural awareness training should therefore be organised for healthcare personnel and hospital management. Such training can improve patient satisfaction by providing information about different cultural norms and habits.

Legal regulations and insurance coverage: Medical tourists may encounter difficulties with legal regulations and insurance matters. They may also face uncertainty regarding legal rights protection and insurance coverage in cases of post-treatment care and complications. Therefore, transparent, standardised pre-pricing and insurance coverage, as well as legal rights advisory services, should be provided to medical tourists.

Quality and Safety Standards: While many hospitals in Turkey hold international accreditation, concerns about the quality and safety standards of some healthcare facilities can undermine patient confidence. International quality and safety standards should be implemented in all Turkish healthcare facilities, and accreditation processes should be strengthened through regular inspections.

Post-treatment care: Post-treatment care is an important issue for medical tourists. Foreign patients may experience difficulties accessing ongoing care and support services after treatment. Special programmes should be devel-

oped to provide this care and support, and remote monitoring and counselling services should be made available to patients after treatment.

Lack of information and guidance: Medical tourists may not receive enough information about the treatment process, hospital selection and accommodation. This may lead to misinformation and dissatisfaction. Information and guidance centres should be established to support medical tourists. These centres could ensure that patients have access to accurate information about the treatment process and receive appropriate guidance. Special packages tailored to patients' needs could also be prepared in collaboration with health tourism agencies.

Furthermore, integrated health and tourism packages should be offered to patients coming for treatment as part of medical tourism. These packages would make patients more comfortable during treatment and provide opportunities for rest and travel afterwards. Hospitals and clinics should conduct satisfaction surveys with medical tourists. These surveys will provide valuable feedback to help improve service quality by identifying any issues or dissatisfaction experienced by patients.

Implementing these solutions will enhance the experience and satisfaction of health tourists, thereby strengthening Turkey's competitive position and international standing in the field of medical tourism. With the necessary improvements and investments, Turkey is expected to become an even stronger player in the global health tourism market.

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Chapter 6

DETERMINATION OF OCCUPATIONAL HEALTH AND SAFETY AWARENESS OF RADIOLOGY UNIT EMPLOYEES

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1. INTRODUCTION

The concept of occupational health and safety (OHS) has come to the forefront and become a highly emphasized topic due to the diversification of working conditions. OHS encompasses efforts to minimize or eliminate problems that arise or may arise depending on the nature of the work performed. The concept of OHS encompasses three fundamental elements: health, occupational health, and occupational safety. According to WHO, health is defined as a state of complete physical, mental, and social well-being. Based on this definition, occupational health can be defined as the physical, mental, and social well-being of an employee at work (WHO, 2009).

Awareness is defined as an individual's conscious, non-judgmental approach to their current situation. This concept is particularly associated with the consciousness of psychologically mature individuals (Yar, 2018; Şahin and Yeniçeri, 2015). OHS awareness can be categorized under factors such as commitment to management, fatalism, education, information, security, and a sense of security. The level of commitment to workplaces and management can be crucial in preventing potential or potential occupational health and safety problems and in developing OHS practices. Employees' OHS awareness is closely related to factors such as training and information. Training contributes to the development of awareness by increasing employees' knowledge and perceptions. Informing them about workplace risks before starting work is reported to be an effective strategy for preventing potential occupational accidents. A fundamental element of OHS is the awareness of individual safety and security (Yelboğa, 2010, Ergüt, 2015). Employees' safety awarenessand sense of security have a direct impact on their commitment to their workplace and their performance. Healthcare employees are classified as having demanding and dangerous jobs in their work environments. In healthcare institutions run for the health of communities, employee health can be ensured through the efforts of the government, businesses, and the individual employees themselves. When the rules established by the government to protect employee health and safety are implemented by businesses and adopted by employees, potential health problems can be prevented. Healthcare workers face various risks of occupational diseases due to the physical work environment of hospitals, the materials they use, and the environmental environment they are exposed to. Many factors contribute to occupational diseases, including the presence of electrical and electronic devices in the work environment, the use of chemical and radioactive substances (Somunoğlu, 2015).

Radiation is the most significant risk factor faced by radiology workers. Radiation is a risk factor that primarily affects cells. A variety of radiation-

related diseases can occur in healthcare workers exposed to radiation, varying depending on the amount of radiation they are exposed to, the type of radiation, the duration of exposure, and individual sensitivity to radiation. In medical applications of radiation, maximum radiation exposure doses are determined by international standards. The first requirement for radiation protection and radiation safety is to provide an adequate standard of protection for the human body to prevent the harmful effects of ionizing radiation without unduly impeding the beneficial effects of radiation exposure. This standard of protection should be determined separately for patients and personnel. Radiation sources in hospitals include radiation scattered from main machinery and radiation emitted from patients treated with beta radiation. Ionizing radiation is widely used in hospitals in the fields of X-ray, fluoroscopy, dermatology, angiography, computed tomography, radiotherapy, and nuclear medicine. However, operating rooms, emergency rooms, and intensive care units are areas where healthcare workers are inadvertently exposed to radiation without adequate measurements. Procedures such as taking patient x-rays and fluoroscopic examinations to check the placement of catheters and drains are frequently performed in operating rooms and intensive care units (Liu et al., 2024). The radiation scattered during these procedures affects healthcare workers in the environment. The effect of radiation on the body depends on the type of radiation, its intensity, the duration of its presence in the body, and the biological and radioactive half-life of the radioisotope. Internal radiation sources, which continuously irradiate cells, are very dangerous (Gökharman et al, 2016; Shimura et al., 2014).

2. MATERIAL AND METHOD

2.1. Data Collection Method

The purpose of this research to reveal the occupational health and safety awareness of hospital radiology employees in hospitals. The research population consists of radiology department staff in public, private and university hospitals operating in Mersin.

Data were collected using a survey form developed using information obtained through a comprehensive literature review. The survey is the most important tool in research, enabling the generation of the data necessary to achieve the objectives of a research project [10,11].

A pre-test was conducted with radiology staff at hospitals in Mersin. Considering the pre-test results and the suggestions received, the survey was finalized on. The survey was then distributed to radiology staff at private and public hospitals. The drop-and-collect method was used in collecting the surveys and consists of a total of 7 questions. The first 6 questions were open-ended and multiple-choice questions designed to determine the demographic characteristics of radiology staff. Question 7 of the study consisted of 22

items. These items were rated on a 5-point Likert scale: 1 = Strongly disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, and 5 = Strongly agree. The options were weighted from 1 to 5, from negative to positive, and were then placed at intervals.

2.2. Testing the Validity and Reliability of the Survey

Reliability analysis was developed to evaluate the properties and reliability of tests, questionnaires, or scales used in measurement It is important to conduct reliability analysis before proceeding with other analyses. This way, the reliability of our scale is proven. The reliability of the scale is interpreted as follows [12], based on the reliability coefficient (α):

- If $0.00 \leq \alpha < 0.40$, the scale is unreliable,
- If $0.40 \leq \alpha < 0.60$, the scale has low reliability,
- If $0.60 \leq \alpha < 0.80$, the scale is highly reliable,
- If $0.80 \leq \alpha < 1.00$, the scale is highly reliable.

Another methods used to calculate reliability is Split-half method and Guttman method. The results of the scale's reliability analysis conducted using different methods. According to Cronbach's Alpha method, the scale is highly reliable, as the (α) for the entire scale are between 0.70 and 0.90. In the Split-half method, the (α) for each dimension separately and for the entire scale as a whole are between 0.70 and 0.90, indicating a high level of reliability. According to the Guttman method applied to the entire scale, it is seen that the scale is reliable since the Lambda coefficients are higher than 0.70.

3. RESULTS and DISCUSSION

3.1. Demographic Findings

According to the data obtained, 37.4% of the participants were female, 62.6% were male, 37.4% were between the ages of 36 and 45, 27% were between the ages of 26 and 35, and 24.5% were between the ages of 46 and 55. When the participants' educational backgrounds were examined, it was revealed that 36.8% had an associate's degree and 36.2% had a bachelor's degree. 59.5% of the participants worked in university hospitals, while 31.9% worked in public hospitals. When examining the distribution of the units in which the participants worked, "MRI" ranked first with 35%, "X-ray" ranked second with 27.6%, and "Tomography" ranked third with 16.6%. The distribution of the participants' professional titles was 47.9% radiology technician, 20.9% assistant technician, and 16% nurse.

3.2. Findings Regarding Participants' Awareness of OHS

Table 1 shows the awareness of hospital radiology unit employees regarding OHS practices ranked by importance. The participants' responses to the questions were averaged, and the importance levels were ranked from the statement with the highest average to the statement with the lowest average. The statements "Dosimeter measurements are regularly performed in my unit (3.8957)" and "Records of dosimeter and medical examination results of employees in my unit are regularly kept (3.8912)" were found to have the highest averages. Based on this result, it can be said that employees are generally of the opinion that dosimeter measurements are regularly performed and their records are kept. It can be said that "In my unit, new radiology employees are required to obtain a medical report to determine their fitness for work (3.8773)" was one of the statements most emphasized by the participants. The employees have health (ray) leave in addition to their annual leave, management takes all necessary precautions against potential workplace accidents, radiology equipment is regularly maintained, and that radiation safety activities are effectively implemented stands out.

Table 1. *Participants' awareness of OHS ranked by importance*

No	Expressions	Average	Standart Deviation
1	Dosimeter measurements are made regularly in the unit where I work.	3.8957	1.36813
2	Records of dosimetry and medical examination results of employees are kept regularly in the unit where I work.	3.8912	1.16329
3	In the unit where I work, a health report is obtained from new radiology employees to determine their suitability for the job.	3.8773	1.15883
4	I am using my health (ray) leave in addition to my annual leave in the unit where I work.	3.8712	1.43650
5	In the unit where I work, management takes all necessary precautions against possible work accidents.	3.8466	1.15781
6	In the unit where I work, radiology devices are maintained regularly.	3.8344	1.18771
7	In the institution where I work, the Radiation Safety Committee carries out its activities effectively.	3.8221	1.20144
8	In the unit where I work, management takes all necessary precautions against possible occupational diseases.	3.7853	1.16927
9	In the unit where I work, all employees always use personal protective equipment to protect themselves from risks.	3.7178	1.33569
10	I think there is a connection between the general health problems experienced by the staff and the unit we work in.	3.6933	1.03238
11	My work environment is arranged in accordance with radiation safety.	3.6622	1.21377

12	Everyone in your unit knows which devices use radiation.	3.6564	1.26384
13	In the unit where I work, repair, maintenance, and calibration records for all devices are regularly kept.	3.6503	1.14684
14	In the unit where I work, all employees have radiation measurement devices.	3.6442	1.49766
15	All personnel in the unit you work in are subject to annual health checks, which must be done every year.	3.6196	1.25319
16	In the unit where I work, necessary precautions are always taken for people whose film dosimeter results are high.	3.5890	1.43901
17	In the unit where I work, work is organized in accordance with laws and regulations.	3.3988	1.44675
18	It is designed in accordance with ergonomic factors in the working environment.	3.3948	1.41220
19	I work overtime beyond what is legally required due to the patient density in the unit I work in.	3.3804	1.32966
20	All personnel in the unit you work in know the monthly radiation dose limit they will be exposed to.	3.3742	1.27698
21	Adequate precautions are taken in our work environment, taking into account occupational risks.	3.3558	1.26042
22	I believe I was exposed to higher than normal radiation due to factors arising from the physical characteristics of the work environment.	2.8037	1.26129

Table 2 examines the responses of radiology workers participating in the study based on their gender. An independent samples t-test was conducted to determine whether there were significant differences in occupational health and safety by gender. Significant differences were found between genders in three of the 22 statements posed to the participants. These statements are: "All employees in my unit have radiation measurement devices". "Dosimeter measurements are regularly conducted in my unit." and "Necessary precautions are always taken against individuals whose film dosimeter results are high in my unit." When the means of these three statements are examined, it can be said that female participants have more negative awarenessof occupational health and safety practices than male participants.

Table 2. *T-test table regarding occupational health and safety awareness by gender*

Expressions		**N**	**Average**	**T value**	**Significance Level**
In the unit where I work, all employees have radiation measurement devices.	Female	61	4.0984	3.071	0.000
	Male	102	3.3725	3.325	
Dosimeter measurements are made regularly in the unit where I work.	Female	61	4.0492	1.108	0.002
	Male	102	3.8039	1.140	

In the unit where I work, necessary precautions are always taken for people whose film dosimeter results are high.	Female	61	3.9508	2.524	0.004
	Male	102	3.3725	2.658	

Table 3 shows the results of a variance analysis conducted to determine whether there were significant differences between statements related to occupational health and safety and the professional titles of radiology workers. Significant differences were found in 15 of the 22 statements used to measure the occupational health and safety of radiology workers. Assistant technicians responded "neither agree nor disagree" to the statement "My work environment is arranged in accordance with radiation safety," while radiology technologists/technicians responded between "agree and strongly agree." It can be said that auxiliary technicians were undecided about the suitability of the work environment in terms of radiation safety, while technicians and technicians found radiation safety adequate. Significant differences were also found in another statement, "I believe there is a connection between the general health problems experienced by staff and the unit we work in." Based on the responses to this statement, nurses and healthcare professionals believed that the radiology department they work in was responsible for the health problems experienced by staff, while radiology technologists and technicians were undecided on this issue. According to the responses to the statement, "In my unit, management takes all necessary precautions against potential occupational accidents," it can be said that while nurses and healthcare professionals believe that management takes the necessary precautions against occupational accidents, doctors are undecided on this issue.

Another statement with significant differences is, "In my unit, repair, maintenance, and calibration records for all devices are regularly kept." Nurses and healthcare professionals responded with "neither agree nor disagree," while radiology technicians and technologists responded with "agree."

Another statement, "My work environment is designed in accordance with ergonomic factors" appears to have varied responses among employees. Based on the responses, assistant technicians can be said to be dissatisfied or undecided with the ergonomic structure of their work environment, while radiology technicians and technologists are satisfied with the ergonomic structure of their work environment.

Another statement with significant differences is, "In my unit, repair, maintenance, and calibration records for all devices are regularly kept." Nurses and healthcare professionals responded with "neither agree nor disagree," while radiology technicians and technologists responded with "agree."

Table 3. *Variance analysis of OHS statements regarding by participants' the professions*

Expressions (N=163)		**N**	**Average**	**Stadart Deviations**	**F value**	**Significance Level**
In the unit where I work, work is organized in accordance with laws and regulations.	Radiology technician	78	3.8077	1.18495	4.363	0.006
	Nurse	27	3.1111	1.73944		
	Doctor	24	2.8750	1.25590		
	Assistant technician	34	3.0588	1.63190		
In the unit where I work, all employees have radiation measurement devices.	Radiology technician	78	4.0000	1.27920	4.386	0.005
	Nurse	27	3.2963	1.75005		
	Doctor	24	3.7917	1.25036		
	Assistant technician	34	3.0000	1.68775		
In the unit where I work, necessary precautions are always taken for people whose film dosimeter results are high.	Radiology technician	78	3.9231	1.33649	2.918	0.036
	Nurse	27	3.4074	1.69296		
	Doctor	24	3.2917	1.36666		
	Assistant technician	34	3.1765	1.38105		
Dosimeter measurements are made regularly in the unit where I work.	Radiology technician	78	4.3077	1.10850	5.025	0.002
	Nurse	27	3.4076	1.69296		
	Doctor	24	3.6667	1.37261		
	Assistant technician	34	3.5000	1.39805		
In the unit where I work, records of dosimetry and medical examination results of employees are kept regularly.	Radiology technician	78	4.1154	1.05659	6.799	0.000
	Nurse	27	3.4815	1.28214		
	Doctor	24	3.4167	0.71728		
	Assistant technician	34	3.3529	1.27641		
In the unit where I work, a health report is obtained from new radiology employees to determine their suitability for the job.	Radiology technician	78	4.1538	1.20687	5.367	0.002
	Nurse	27	3.2222	1.15470		
	Doctor	24	4.0417	0.90790		
	Assistant technician	34	3.6471	0.98110		

(Table 3 continued)

In the unit where I work, radiology devices are maintained regularly.	Radiology technician	78	4.1923	1.08182	10.016	0.000
	Nurse	27	2.9630	0.75862		
	Doctor	24	4.1250	1.03472		
	Assistant technician	34	3.500	1.37620		
In the unit where I work, repair, maintenance and calibration records of all devices are kept regularly.	Radiology technician	78	4.0769	1.07835	10.023	0.000
	Nurse	27	2.8519	.81824		
	Doctor	24	3.5000	1.31876		
	Assistant technician	34	3.4118	0.98835		
I think I was exposed to higher than normal radiation due to factors arising from the physical characteristics of the work environment.	Radiology technician	78	2.5385	1.19188	4.212	0.007
	Nurse	27	2.7778	0.97402		
	Doctor	24	3.5417	1.47381		
	Assistant technician	34	2.9118	1.28788		
My work environment is arranged in accordance with radiation safety.	Radiology technician	78	4.2692	0.76741	14.068	0,000
	Nurse	27	3.2593	1.34715		
	Doctor	24	3.1667	1.43456		
	Assistant technician	34	3.0882	1.21525		
My work environment has been arranged in accordance with ergonomic factors.	Radiology technician	78	3.8846	1.05659	7.850	0.000
	Nurse	27	3.1852	1.38778		
	Doctor	24	3.1667	1.60615		
	Assistant technician	34	2.6176	1.61461		
Everyone in your unit knows which devices use radiation.	Radiology technician	78	4.0000	1.00647	4.528	0.004
	Nurse	27	3.3704	1.41824		
	Doctor	24	3.5833	1.28255		
	Assistant technician	34	3.1471	1.45919		

(Table 3 continued)

I think there is a connection between the general health problems experienced by the staff and the unit we work in.	Radiology technician	78	3.3462	0.92339	9.987	0.000
	Nurse	27	4.6885	0.75378		
	Doctor	24	3.9167	1.01795		
	Assistant technician	34	3.7059	1.11544		
In the unit where I work, management takes all necessary precautions against possible work accidents.	Radiology technician	78	4.0000	0.88273	8.535	0.000
	Nurse	27	4.4815	0.75296		
	Doctor	24	3.0833	1.41165		
	Assistant technician	34	3.5294	1.41925		
In the unit where I work, management takes all necessary precautions against possible occupational diseases.	Radiology technician	78	3.7692	0.85163	6.413	0.000
	Nurse	27	4.5556	0.69798		
	Doctor	24	3.6250	1.52693		
	Assistant technician	34	3.3235	1.51198		

Table 4 shows the results of a variance analysis conducted to identify significant differences in the responses given to questions posed to radiology workers to determine their awareness of OHS based on their educational back ground. Significant differences were found in the responses given to 12 of the 22 statements posed to radiology workers. Significant differences were found in the responses to the statement. “In my unit, the necessary precautions are always taken for people whose film dosimeter results are high.” Master’s degree holders responded “neither agree nor disagree” to this statement while bachelor’s degree holders responded “agree.” Another statement with significant differences was “In my unit, radiology equipment is maintained regularly.” Based on the responses, employees with doctorate degrees agreed that radiology equipment is maintained regularly, while those with master’s degrees were more neutral on this issue. Significant differences were also found in another statement. “I believe there is a connection between the general health problems experienced by staff and the unit we work in.” Based on the responses to this statement. It can be said that employees with master’s degrees believe that their radiology departments are responsible for the health problems they experience, while employees with associate’s degrees are undecided on this issue.

Table 4. *Variance analysis of OHS statements regarding by participants' education*

Experissions (N=163)		**N**	**Average**	**Standart Deviation**	**F value**	**Significance Level**
In the unit where I work, necessary precautions are always taken for people whose film dosimeter results are high.	Associate degree	60	3.8000	1.44738	3.859	0.011
	Bachelor degree	59	3.8305	1.23390		
	Master degree	25	2.9200	1.65630		
	Doctorate	19	3.0526	1.39338		
Dosimeter measurements are made regularly in the unit where I work.	Associate degree	60	4.2500	1.22992	2.743	0.045
	Bachelor degree	59	3.8136	1.34516		
	Master degree	25	3.4000	1.60728		
	Doctorate	19	3.6842	1.33552		
In the unit where I work, all employees always use personal protective equipment to protect themselves from risks.	Associate degree	60	4.1000	1.23096	2.990	0.033
	Bachelor degree	59	3.5763	1.28926		
	Master degree	25	3.2800	1.51438		
	Doctorate	19	3.5263	1.34860		
In the unit where I work, records of dosimetry and medical examination results of employees are kept regularly.	Associate degree	60	4.1000	1.05284	3.975	0.009
	Bachelor degree	59	3.6102	1.27329		
	Master degree	25	3.6400	1.22066		
	Doctorate	19	4.4737	.69669		
In the unit where I work, radiology devices are maintained regularly.	Associate degree	60	3.9500	1.25448	2.715	0.047
	Bachelor degree	59	3.7627	1.22248		
	Master degree	25	3.3600	1.11355		
	Doctorate	19	4.3158	0.67104		

My work environment is arranged in accordance with radiation safety.	Associate degree	60	4.0000	1.05766	4.321	0.006
	Bachelor degree	59	3.6780	1.08978		
	Master degree	25	3.6000	1.41421		
	Doctorate	19	2.8947	1.44894		

(Table 4 continued)

The ergonomic factors of my work environment are arranged appropriately.	Associate degree	60	3.7000	1.27957	2.848	0.039
	Bachelor degree	59	3.2712	1.46017		
	Master degree	25	3.5200	1.41774		
	Doktorate	19	2.6842	1.45498		
I work overtime beyond what is legally required due to the patient density in the unit where I work.	Associate degree	60	3.1500	1.16190	3.035	0.031
	Bachelor degree	59	3.2712	1.31084		
	Master degree	25	4.0400	1.27410		
	Doktorate	19	3.5789	1.70996		
In the institution where I work, the Radiation Safety Committee carries out its activities effectively.	Associate degree	60	3.9500	1.08025	3.791	0.012
	Bachelor degree	59	3.5424	1.38118		
	Master degree	25	4.4000	.86603		
	Doktorate	19	3.5263	1.07333		
I think there is a connection between the general health problems experienced by the staff and the unit we work in.	Associate degree	60	3.2500	.89490	9.875	0.000
	Bachelor degree	59	3.7458	1.06014		
	Master degree	25	4.4400	.82057		
	Doktorate	19	3.9474	.97032		
In the unit where I work, management takes all necessary precautions against possible work accidents.	Associate degree	60	3.8000	1.08612	8.370	0.000
	Bachelor degree	59	3.7966	1.09512		
	Master degree	25	4.6800	0 .74833		
	Doktorate	19	3.0526	1.39338		
In the unit where I work, radiology devices are maintained regularly.	Associate degree	60	3.9500	1.25448	2.715	0.047
	Bachelor degree	59	3.7627	1.22248		
	Master degree	25	3.3600	1.11355		
	Doktorate	19	4.3158	0.67104		

(Table 4 continued)

My work environment is arranged in accordance with radiation safety.	Associate degree	60	4.0000	1.05766	4.321	0.006
	Bachelor degree	59	3.6780	1.08978		
	Master degree	25	3.6000	1.41421		
	Doktorate	19	2.8947	1.44894		
My work environment has been arranged in accordance with ergonomic factors.	Associate degree	60	3.7000	1.27957	2.848	0.039
	Bachelor degree	59	3.2712	1.46017		
	Master degree	25	3.5200	1.41774		
	Doktorate	19	2.6842	1.45498		
I work overtime beyond what is legally required due to the patient density in the unit where I work.	Associate degree	60	3.1500	1.16190	3.035	0.031
	Bachelor degree	59	3.2712	1.31084		
	Master degree	25	4.0400	1.27410		
	Doktorate	19	3.5789	1.70996		
I think there is a connection between the general health problems experienced by the staff and the unit we work in.	Associate degree	60	3.2500	.89490	9.875	0.000
	Bachelor degree	59	3.7458	1.06014		
	Master degree	25	4.4400	.82057		
	Doktorate	19	3.9474	.97032		
In the unit where I work, management takes all necessary precautions against possible work accidents.	Associate degree	60	3.8000	1.08612	8.370	0.000
	Bachelor degree	59	3.7966	1.09512		
	Master degree	25	4.6800	.74833		
	Doktorate	19	3.0526	1.39338		
In the unit where I work, management takes all necessary precautions against possible occupational diseases.	Associate degree	60	3.6500	1.07080	4.158	0.007
	Bachelor degree	59	3.6271	1.11260		
	Master degree	25	4.5200	.87178		
	Doktorate	19	3.7368	1.62761		

5. CONCLUSIONS

This study was conducted to examine the OHS awareness of radiology unit employees. The results of this study were obtained which surveyed 163 employees working in the radiology units of public, private and university hospitals operating in Mersin.

The items that radiology employees found most important regarding their awareness of OHS practices were "Dosimeter measurements are regularly performed in my unit (3.8957)" and "Records of dosimeter and medical examination results of employees in my unit are regularly kept (3.8912)." Based on this result, it can be said that employees are generally of the opinion that dosimeter measurements are performed regularly and their records are kept

regularly. On the other hand, another item that employees found important was "In my unit, new radiology employees are required to obtain a health report to determine their suitability for the job (3.8773)." Accordingly, it can be concluded that obtaining a health report from new employees is important.

A t-test and variance analysis were conducted to determine whether radiology department employees' awareness of OHS practices differed by demographic characteristics, and significant differences were found based on gender, profession and educational back ground. An independent samples t-test was conducted to examine whether there were significant differences in OHS awareness by gender. Significant differences were found between genders for three of the 22 statements posed to the participants. These statements were: "All employees in my unit have radiation measurement devices. "Dosimeter measurements are regularly conducted in my unit." and "Necessary precautions are always taken for individuals whose film dosimeter results are high in my unit." The means of these three statements indicate that female participants have more negative awareness of OHS practices than male participants. A variance analysis was conducted to examine whether there were significant differences in OHS awareness by job title. Significant differences were found in 15 of the 22 items used to measure occupational health and safety among radiology workers. A variance analysis was conducted to determine whether there were significant differences in OHS awareness based on educational back ground. Significant differences were found in 12 of the 22 items used to measure OHS awareness among radiology workers.

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Chapter 7

NARRATING TRAUMA: PSYCHOLOGICAL AFTERMATH OF 9/11 IN DON DELILLO'S *FALLING MAN* AND JONATHAN SAFRAN FOER'S *EXTREMELY LOUD AND INCREDIBLY CLOSE*[1]

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Introduction

This moral is that the flower of art blooms only where the soil is deep, that it takes a great deal of history to produce a little literature, that it needs a complex social machinery to set a writer in motion.

Henry James

Much of the history of the United States has been part of the "soil" with a deep structure that makes the basis of American literature as well as reshaping the apprehension and creating immense effect on American writing. This historical consciousness continues to shape the ways in which literature captures and configures collective memory. In this context, trauma provides an important lens to analyze and interpret how historical events are represented. Therefore, literature is increasingly seen not just as a reflection of traumatic experience but as a medium through which trauma is analyzed. Contemporary trauma fiction, especially in the aftermath of events such as the Holocaust, 9/11 and various colonial and postcolonial events, offers complex narrative forms that reflect the fragmented time, repetition, and silence characteristic of traumatic memory. The events of 9/11 constitutes a turning point that created deep wounds not only on the American psyche but also on the collective memory of the World. This psychological impact went beyond individual grief, fear and disorientation, revealing trauma's role as a collective force that shapes national identity and cultural memory. Therefore, literature has a great role in understanding the importance and magnitude of this tragedy in terms of trauma, mourning, memory and identity.

The aim of this study is to analyze Don DeLillo's *Falling Man and* Jonathan Safran Foer's *Extremely Loud and Incredibly Close* as post 9/11 notable works within this emerging canon. Don DeLillo and Jonathan Safran Foer are two prominent authors who depict the psychological aftermath of 9/11, capturing both the internalized trauma of survivors and the broader emotional consequences of the attacks. In their works, literature works not merely as a medium for reflecting historical events, but also as a form of therapeutic intervention, a means of processing grief and emotional fragmentation. As Ann E. Kaplan (2005) argues, "Trauma can never be 'healed' in the sense of a return to how things were before a catastrophe took place, or before one witnessed a catastrophe; but if the wound of trauma remains open, its pain may be worked through in the process of its being 'translated' via art" (p.19). Thus literature becomes a space where trauma is not erased, but transformed, reimagined, re-narrated and to some extent, endured through the act of storytelling.

In their literary works, both Don DeLillo and Jonathan Safran Foer examine the inner lives of 9/11 victims, focusing on how traumatic experiences change their perception of reality and disrupt their capacity to live meaningfully. It is evident that exposure to devastating events not only causes emotional distress but also deeply fractures one's worldview. As Irene Kacandes (2003) observes, "This disturbance is so utterly irreconcilable to one's existing frame of reference that in its aftermath, one cannot observe the world in the same way as prior to the events" (p.173). In this context, trauma leaves long-term psychological wounds that prevent a return to a prior state of normalcy. The novels of DeLillo and Foer thus portray trauma not as a transient episode but as a long-term condition that reconfigures identity and shapes the post-traumatic self.

Theoretical Perspectives on Trauma and PTSD

The term trauma derives from the ancient Greek word "trauma", meaning a wound—specifically, a bodily injury caused by an external force. In early medical discourse, particularly in the Hippocratic and Galenic traditions, trauma was associated strictly with somatic damage, necessitating physical treatment. Long before trauma was formally theorized in psychiatry, classical and ancient texts portrayed characters marked by extreme psychological suffering. One of the earliest literary representations of trauma can be found in the *Mesopotamian Epic of Gilgamesh*, which dates back to approximately 2000 B.C. (Birmes et al., 2003, p.18). The epic portrays King Gilgamesh's profound psychological suffering following the death of his close friend, Enkidu. The narrative includes vivid expressions of grief, rage, and despair as emotional states that align with contemporary understandings of psychological trauma as outlined by the American Psychiatric Association. As such, the Epic of Gilgamesh not only offers a foundational mythic representation of loss but also depicts the emotional and psychological patterns observed in trauma studies today.

The modern era of trauma studies was mostly shaped by the psychological toll of World War I, particularly in 1914–1915, when a new psychological term "shell shock" emerged to describe the mental disturbances observed in soldiers exposed to the trauma of trench warfare. On February 13th, 1915, the term was officially introduced in medical literature through a paper published in *The Lancet* by Charles Myers, a British psychologist who was among the first to clinically document the psychological impact of war (Mollon, 2015). Based on his observations of soldiers on the Western Front, Myers identified a range of symptoms, including "loss of or impaired hearing, sight and sensation," as well as physical manifestations such as "tremor," "loss of balance," "headache," and "fatigue." These symptoms, although not caused by physical injury, reflected the psychological toll of modern warfare and marked the beginning of the medical field's attempt to understand and treat war-related

trauma. In her well known work *Trauma and Recovery*, American psychiatrist Judith Herman (1997) described the experience of Siegfried Sassoon, a young British officer and poet, who showed symptoms of what was then referred to as "shell shock"—a psychological breakdown caused by the horrors of World War I. Though initially described as being in a "bad state of nerves," Sassoon, like many others who survived the war, continued to suffer long after the battles had ended. To manage the lasting effects of trauma, he devoted his life to narrating his wartime experiences. As he described it: "Shell shock. [...] Not then was their evil hour; but now; now, in the sweating suffocation of nightmare, in paralysis of limbs, in the stammering of dislocated speech" (Herman, p.23). Despite visible recovery, Sassoon remained haunted by the memories of violence, showing how trauma, once established in the psyche, resists closure and continues to affect the survivor's post-war life.

In 1980, the American Psychiatric Association formally presented the term post-traumatic stress disorder (PTSD) in the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III). This marked a significant shift in psychiatric diagnosis, as PTSD involved earlier terms such as shell shock, war neurosis, traumatic neurosis, and other descriptions of post-traumatic syndromes for the first time in a standardized clinical framework. According to *The Encyclopedia of Psychological Trauma*, PTSD is defined as a "unique psychiatric diagnosis describing the pattern of response in individuals exposed to extreme stressors" (Reyes, Elhai, & Ford, 2008, p.491). In this context, post-traumatic stress disorder is characterized by a persistent sense of being psychologically trapped in a past traumatic experience, to such a degree that it disrupts the individual's ability to engage meaningfully in present-day relationships and life activities (Reyes, et al. p.487). The definition of PTSD also extended the field of study that trauma was now recognized not only in war veterans but also in survivors of domestic abuse, sexual violence, genocide, and terrorism.

Following the formal recognition of post-traumatic stress disorder (PTSD) as a psychiatric condition, trauma discourse gradually extended beyond the clinical realm into the fields of literature and history. One of the prominent scholars in the development of trauma studies is Cathy Caruth, whose significant book *Unclaimed Experience: Trauma, Narrative, and History* established a theoretical framework that has influence on literary criticism. Caruth (1996) describes trauma: "An overwhelming experience of sudden or catastrophic events in which the response to the event occurs in the often uncontrolled, repetitive appearance of hallucinations and other intrusive phenomena" (p.57). Through this framework, Caruth emphasizes that trauma is not fully experienced in the moment of occurrence, but rather re-emerges later in involuntary and fragmented forms, often disrupting the subject's sense of time, self, and narrative coherence. She asserts that "trauma

is not locatable in the simple violent or original event in an individual's past, but rather in the way that its very unassimilated nature—the way it was precisely not known in the first instance—returns to haunt the survivor later on" (p.4). Her work emphasizes the delayed and recursive nature of traumatic experience and defines it as a disorder in time perception and a challenge to conventional modes of narrative representation. As Anne Whitehead notes in her book *Trauma Fiction* (2004), there is a similarity between Cathy Caruth and Sigmund Freud that the concept of trauma involves the complex ways in which certain experiences, impressions, and memory traces are revised retrospectively, often reactivated or reinterpreted later in life in light of new experiences or developmental stages. This understanding introduces a radical rethinking of both causality and temporality in relation to memory. In Freud's theory, a traumatic event is not fully registered or understood at the time of its occurrence; it only becomes truly meaningful, an event in psychological terms, when it resurfaces during a later moment of intense emotional crisis. This delay in comprehension, often referred to as deferred action "Nachträglichkeit", is central to psychoanalytic understandings of trauma and memory (Whitehead, p.6).

Trauma in Cultural Context and 9/11

Perfect Weather

The sky was so clear, the morning beautiful,

The weather fair, neither hot nor cool, the tower

a flame far down the avenue, a white smokestack

seen at eye-level, a huge, multi-alarm fire

firefighters attend to, and then, like the descent

of chalk on a blackboard behind all that is remembered,

behind the mind, behind the apprehended,

a sight without a reference […]

Star Black

The September 11 attacks represent a series of traumatic events that not only caused deep physical destruction and personal suffering, but also deeply broke the systems through which individuals make sense of the world. As Versluys (2009) argues, 9/11 led to the collapse of "meaning-making systems" alongside the literal collapse of the Twin Towers (p.2). This breakdown of symbolic order and comprehension is poetically captured by Star Black in her poem "Perfect Weather", where the serene clarity of the morning gives way to a moment that exists "behind the mind, behind the apprehended, / a sight without a reference" (Baer, 2002, p.72). Black's description shows the confusion and feelings that are

hard to explain, which are linked to trauma, an event that is difficult to fully understand as it happens. Similarly, Don DeLillo notes the lasting psychological shock of the attacks, observing that people "cannot tilt it to the slant of [their] perception," suggesting an ongoing struggle to assimilate the event into ordinary frameworks of understanding (DeLillo, 2001). Jacques Derrida, in *Philosophy in a Time of Terror*, also speaks to the radical unknowability of the attacks, stating that "what is terrible about 'September 11,' what remains 'infinite' in this wound, is that we do not know what it is and so do not know how to describe, identify, or even name it" (Borradori, 2003, p.94). Comprehending catastrophic events becomes exceptionally difficult for survivors, especially when the destruction, death, and suffering are the result of deliberate human actions, as was the case with the terrorist attacks of September 11. Sociologist Neil Smelser emphasizes the unprecedented magnitude of 9/11, noting that the American public widely perceived it as perhaps the greatest trauma in national history. Describing the events of the day, he writes: "Nineteen terrorists—none detected, none apprehended—boarded four commercial airliners at different airports, hijacked them, and turned them toward a mission of destruction and death" (Alexander, Eyerman, Giesen, Smelser, & Sztompka, 2004, p.264). The planned mass violence made the psychological impact stronger, making the event an important example of cultural trauma therefore, it is essential to elaborate on the specific elements of 9/11 that led to its recognition as a cultural trauma. Collectively traumatizing events, particularly those associated with psychological distress, often provoke "an initial reaction of shock, disbelief, and emotional numbing, not unlike responses to other significant disasters except in their intensity" (Alexander, et.al., 2004, p.272). This increased intensity was the result of the attacks' suddenness, magnitude, and consequences which led to an intervention on national life and a break in the common sense. As a natural outcome of such tragic experiences, people may show reactions in the name of collective mourning. For instance, expressions of patriotic sentiment emerged as a part of the collective reaction to the trauma of September 11. The widespread display of the American flag, while overtly nationalistic and patriotic, functioned as a visual expression of solidarity and mourning. As Kaplan (2005) observes, such gestures signified empathy for those who had lost family members or friends, and simultaneously voiced a shared sense of national grief. Moreover, these symbols conveyed messages of resilience to both domestic and international audiences, exemplified by phrases such as, "The terrorists thought that they could tear us apart. But it brought us together" and "We are not broken" (p.9). The media also played an active role during the immediate aftermath of the 9/11 attacks. In the shocking days that followed, it worked in coherence with the government to console the public and foster national unity. Through its coverage, the media projected an image of a unified America, both to domestic audiences and to international observers.

Consequently, the collective trauma generated by September 11 aligns with Jeffrey C. Alexander's description of cultural trauma as an experience that imprints itself permanently on group consciousness, as he notes, cultural trauma happens "when members of a collectivity feel they have been subjected to a horrendous event that leaves indelible marks upon their group consciousness, marking their memories forever, and changing their future identity in fundamental and irrevocable ways" (Alexander et al., 2004, p.1). The origin of trauma, then, lies not solely in the traumatic event itself, but in its cultural interpretation and the communal meaning assigned to it. From this perspective, trauma is not a natural or automatic response to catastrophe; rather, it is historically produced and socially constructed. The September 11 terrorist attacks posed a challenge to the United States on every respect, particularly in terms of the national response they demanded. Along with confusion and contradiction, the traumatic nature of the event left individuals and communities suspended between the struggle to comprehend what had occurred and the essential necessity to reconstruct a coherent narrative around the experience of trauma.

Living with the Afterimage: DeLillo's *Falling Man*

In *The Nature of Trauma in American Novels*, Michelle Balaev examines the narrative structures characteristic of trauma literature, noting that such works "convey a diversity of extreme emotional states through an assortment of narrative innovations, such as landscape imagery, temporal fissures, silence, or narrative omission including the withholding of graphic, visceral details" (Balaev, 2012, p.22). Balaev further explains that characters' turbulent psychological states are often emphasized through nonlinear storytelling rather than conventional chronological order: "The text may exhibit a nonlinear plot or a disruptive temporal sequence to emphasize mental confusion, chaos, or contemplation as a response to the experience" (p.22). Don DeLillo's *Falling Man* exemplifies this technique by dividing the narrative into three parts as "Bill Lawton," "Ernst Hechinger," and "David Janiak", each presenting fragmented stories that disrupt linear time and reflect the protagonists' traumatized mental states. The novel is narrated in the omniscient third person from the perspectives of three survivors of the attacks—Keith, Lianne, and Florence—as well as Hammad, a terrorist. Although Don DeLillo focuses on the cultural ramifications of the September 11 attacks in his essay "In the Ruins of the Future", in *Falling Man* he shifts attention to the psychological aftermath experienced by individual characters. The novel explores the interior lives of mentally wounded survivors as they oscillate between the desire to process their traumatic experiences and the compulsion to repress them. Rather than addressing trauma as a collective social issue, DeLillo reconstructs individual memory through a fragmented narrative structure. He employs techniques such as "intertextuality, repetition,

and fragmentation" to mirror the disruptions of traumatic experience (Baelo-Allué, 2012, p.69). In order to explore the confused, disoriented, and wounded inner worlds of his characters, DeLillo benefits from the "shifts in time and memory, a variety of voices and subject positioning, visual images, textual gaps, repetitions and shifting viewpoints" portraying the trauma as indescribable (Baelo-Allué, 2012, p.69). The novel begins and ends with the same scene, employing non-linear transitions between past and present, while alternating among various points of view.

Falling Man opens with the injured protagonist, Keith, retreating from the collapsing towers while taking in his surroundings, described as "a car half buried in debris, windows smashed and noises coming out, radio voices scratching at the wreckage" (DeLillo, 2007, pp.3-4). The novel concludes by returning to the moment just before Keith steps out of the towers, capturing a scene "where everything was, all around him, falling away, street signs, people, things he could not name" (p. 246). This narrative form, which pauses the depiction of September 11 and its aftermath between the beginning and end, reflects the fragmented and disoriented mental states of the victims. Throughout *Falling Man*, DeLillo exposes traumatized minds, pervasive terror, and tormenting flashbacks through characters grappling with their nightmares, stated in the phrase: "These are the days after. Everything now is measured by after" (p.138). This quotation can be seen as emblematic of the novel's central theme, as DeLillo contrasts the world before and after September 11, showing the disruption in individuals' mental and emotional states. His portrayal reveals how the attacks transformed the world into an unsafe, chaotic, and disordered space, producing pervasive insecurity and doubt. Correspondingly, the novel explores how trauma can alter and destabilize an individual's character and sense of self.

Falling Man primarily focuses on the everyday life of Keith Neudecker, a 9/11 survivor, and his family. Notably, Keith is referred to simply as "he" until the ninth page, a narrative choice that, according to Michelle Balaev (2012), "provides a picture of the individual who suffers, but paints it in such a way as to suggest that this protagonist is an 'every person' figure" (p.17). Balaev argues that this frequent use of pronouns rather than proper names serves to depict the characters as anonymous individuals collectively traumatized by the events of September 11. Building on the depiction of trauma and fragmented identity, *Falling Man* begins by illustrating Keith's immediate physical and psychological state as he wanders the streets just after surviving the attack. Although Keith was inside the towers during the event, he manages to escape alive. His body is described vividly as "up from the dead, like gray soot head to toe with blood on his face and clothes" (DeLillo, 2007, p.8), emphasizing the raw and disturbing nature of his experience. Rather than seeking medical help, Keith's first instinct is to go to Lianne, his estranged wife and the novel's

other central character, who experiences the trauma indirectly by witnessing the events unfold through the media. This juxtaposition between Keith's direct physical trauma and Lianne's mediated experience deepens the novel's exploration of how trauma manifests differently within individuals connected by personal relationships. Because of the severe psychological impact of his trauma and the proximity of his apartment to the towers, Keith moves in with Lianne and their son Justin. Justin, too, becomes deeply affected by the event as he shows his involvement through behaviors such as searching for planes with binoculars alongside his friends, the siblings.

Through the evocative lines Keith experienced as "he heard the sound of the second fall, or felt it in the trembling air, the north tower coming down, and a soft awe of voices in the distance. That was him coming down, the north tower", DeLillo establishes an inseparable connection between the Twin Towers and Keith's psyche, which collapses simultaneously with the towers (p.5). This association is further emphasized by the novel's recurring temporal markers such as "three days after the planes," "ten days after the planes," "fifteen days after the planes," "thirty-six days after the planes," and "three years after the planes". These repeated phrases evoke Cathy Caruth's conceptualization of trauma, which she describes not as the immediate result of a traumatic event but rather as its delayed re-experiencing through evocations, nightmares, and compulsive repetitions that force the survivor to relive the past. Caruth emphasizes how the traumatized mind continuously exposes itself to the tragic event, a pattern reflected in DeLillo's use of repetition to symbolize the fragmented memory of the victims. Beyond repetitive phrases, the novel also revisits key scenes, Keith's experience of the attack appears both at the beginning and the end reflecting Caruth's assertion that trauma is not fully realized until it resurfaces in the mind. Thus, DeLillo's narrative structure reconstructs trauma in the concluding pages, allowing a deeper exploration of Keith's wounded psyche (Caruth, 1996, p.4). Like Keith, Lianne also shows behaviors that reflect the psychological impact of trauma. She suffers from memory lapses and has fears of developing Alzheimer's disease, as her father did. In an effort to regain a sense of control, she finds comfort in repetitive mental exercises, particularly counting makes "her feel good, the counting down, and she did it sometimes in the day's familiar drift, walking down a street, riding in a taxi" (DeLillo, 2007, p.188). Following her doctor's advice, Lianne practices counting backward from one hundred by sevens in order to prevent memory loss. These repetitive actions not only supply comfort but also provide some sort of organizations to the traumatized and confused minds of the characters.

As Cathy Caruth emphasizes, trauma is not directly accessible because it surfaces later, the initial shock causes a break in mental processing, postponing the individual's understanding of the event. This delayed processing is evident

in Keith's response to the death of his friend Rumsey during the attacks:

He began to lift, his face warm with the blood on Rumsey's shirt, blood and dust. The man jumped in his grip. There was a noise in his throat, abrupt, a half second, half gasp, and then blood from somewhere, floating, and Keith turned away, hand still clutching the man's belt. … He stood and looked at him and the man opened his eyes and died. This is when he wondered what was happening here. (DeLillo, 2007, p.243)

It is significant that Keith only begins to question the reality of the attacks after his friend Rumsey dies in his arms. This moment is what Cathy Caruth calls the "second wounding", a psychological breach where trauma becomes mentally accessible. Keith first feels numb, but then this close encounter with death makes him painfully aware. The trauma intensifies further when he sees a man falling from the tower at the same moment:

… he tried lifting Rumsey out of the chair. Then something outside, going past the window. Something went past the window, then he saw it. First it went and was gone and then he saw it and had to stand a moment staring out at nothing, holding Rumsey under the arms. He could not stop seeing it, twenty feet away, an instant of something sideways, going past the window, white shirt, hand up, falling before he saw it. (DeLillo, 2007, p.242)

Witnessing Rumsey's death and seeing the falling man leaves Keith feeling disconnected and confused. That powerful image makes his trauma even worse, mixing feelings of death, confusion and helplessness at once. He seems emotionally and mentally shaken, unable to fully understand what's happening around him: "It wasn't until he got in the truck and shut the door that he understood where he had been going all along" (p.6). His sense of time and place becomes confused, which is common in trauma. Keith's mind starts to break down as he tries to make sense of what he's been through. The overwhelming event changes how he sees himself and the world. Because of this, he no longer feels like the same person, showing how trauma can break and reshape someone's identity when memories are too hard to process.

Florence Givens is another survivor who shares a parallel experience with Keith. Their paths cross when Keith returns her briefcase and a bond begins to form as they discuss the events of the attacks. Like Keith, Florence survives despite the loss of a friend, and their shared trauma allows them to connect on an intimate level. As DeLillo illustrates: "She talked about the tower, going over it again, claustrophobically, the smoke, the fold of bodies, and he understood that they could talk about these things only with each other" (p.90). Their friendship provides a space for healing and offers common recognition and understanding. Keith finds comfort in her narration, which helps him recover aspects of his own fractured memory: "It was inside them now and he needed to hear what he'd lost in the tracings of memory" (p.91).

Yet, while Florence actively articulates her trauma, Keith remains largely silent and prefers to listen. "She tried to recall things and faces, moments that might reveal something. […] She was going through it again and he was ready to listen again. He listened carefully, noting every detail..." (pp. 58-59). Florence's ability to verbalize her traumatic memory shows a significant psychological step that Keith cannot yet take. According to trauma theorist Dori Laub (1995), "repossessing one's life story through giving testimony is itself a form of action, of change, which one has to actually pass through, in order to continue and complete the process of survival after liberation" (p.70). According to Laub, narrating trauma is not only an act of survival but also a way for the subject to regain agency. Florence's storytelling reflects this transformation, while Keith's continued silence shows that his healing process is still incomplete.

After the attacks Keith does not return to his own apartment but instead feels a compelling need to be with Lianne and their son Justin. Although he attempts to resume a semblance of his former life, neither he nor Lianne can reestablish their past emotional connection. Their shared yet distinct experiences of psychological rupture prevent them from restoring intimacy; thus, their renewed relationship turns into a bond that is more physical than emotional. As DeLillo describes, "He lay on his back and talked but mostly listened and this was all right. She didn't need to know a man's feelings about everything, not anymore and not this man. She liked the spaces he made" (DeLillo, 2007, p.18). The trauma they experienced has changed their minds and the way they relate to each other. Although Lianne is not a direct witness to the attacks like Keith, she becomes psychologically affected through media exposure. She attempts to avoid the repeated footage of the planes striking the towers, yet finds herself unable to look away. The televised image of the second plane haunts her deeply:

The second plane coming out of that ice blue sky, this was the footage that entered the body, that seemed to run beneath her skin, the fleeting sprint that carried lives and histories, theirs and hers, everyone's, into some other distance, out beyond the towers (p.134).

In this way, the traumatic event enters Lianne's consciousness through collective media experience. Despite its disturbing effects, the televised footage also becomes one of the few shared spaces where Keith and Lianne can relate to each other. Watching the images together, they achieve a limited form of communication based on their mutual post-9/11 reality.

Throughout the novel, psychological trauma mainly appears in Keith's disoriented behavior as a direct survivor, while Lianne's reaction shows the trauma felt by witnesses and the wider American public. Her comments reveal a shared confusion and vulnerability:

"I know that most lives make no sense. I mean in this country, what makes sense? […] You were stronger than I was. You helped me get here. I don't know what would have happened."

"I can't talk about strength. What strength?"

"That's what I saw and felt. You were the one in the tower but I was the berserk" (p.215).

In this context, DeLillo captures the complexity of trauma in both its personal and communal perspectives and emphasizes that proximity to tragic event does not necessarily determine the depth of its psychological toll. Following the traumatic event, the reunion of the Neudecker family does not result in renewed unity. Instead, each member tries to act on their own and withdraws into personal activities and isolation. As Versluys (2009) notes, "The events of September 11, rather than drawing the family together, are the cause of further alienation" (p.28). Keith spends his time gambling to escape and distract himself, while Lianne finds comfort in group sessions that she hopes will lift her mood and slow down her feared early-stage Alzheimer's diease. Meanwhile, their son Justin, like many children affected by the attack, attempts to manage the trauma through imaginative play Justin spent most of his time with his friends, referred to as "the siblings," and created a secret and controlled world away from the violence of the real world. Within this imagined world, the children create scenarios in which the planes have not yet hit the towers and provided a fantasy of safety and order. This protective illusion reflects a child's attitude to make meaning and agency against overwhelming loss and confusion.

The Echoes of Loss: Jonathan Safran Foer's *Extremely Loud and Incredibly Close*

Jonathan Safran Foer's *Extremely Loud and Incredibly Close* (2005) centers on the experiences of three deeply traumatized characters, Oskar Schell and his paternal grandparents, whose intertwined narratives reflect varied attempts to cope with overwhelming loss. Oskar, who is novel's nine-year-old protagonist, is confronted with the devastating death of his father in the September 11 terrorist attacks. In the wake of this loss, he becomes melancholic, emotionally withdrawn and consumed by guilt. He distances himself from others, particularly his mother, whom he resents for what he perceives as an inadequate mourning process. Unable to make sense of his grief, Oskar turns to invention and imagination as coping mechanisms by channeling his anxiety into eccentric projects and obsessive quests. In parallel, Oskar's grandparents are survivors of the Dresden bombings in World War II and must now also bear the grief of losing their son on 9/11. While united by trauma, each character manages it in distinct personal ways which shows the layered nature of psychological survival in the aftermath of tragic event.

On the day of the attacks, Oskar returns home earlier than usual, thinking that his loved ones are not directly affected by the events at the World Trade Center. However, upon arriving home, he discovers five messages on the family's answering machine, all left by his father from within the towers. The first message expresses an unsettling calmness in the beginning of growing uncertainty:

Message one. Tuesday, 8:52 a.m. Is anybody there? Hello? Its Dad. If you're there, pick up. Ijust tried the office, but no one was picking up. Listen, somethings happened. I'm OK. They're telling us to stay where we art and wait for the firemen. I'm sure it's fine. I'll give you another call have a better idea of what's going on. Just wanted to let you know that I'm OK, and not to worry. I'll call again soon (Foer, 2005, pp.14-15).

As Oskar listens to each subsequent message, the tone grows increasingly desperate. The final call, which occurs shortly before the collapse of the towers, is particularly traumatic for Oskar, as he finds himself unable to pick up the phone: "He needed me, and I couldn't pick up. I just couldn't pick up. I just couldn't. *Are you there*?" He asked eleven times" (p.301). In analyzing the psychological impact of trauma, Judith Herman observes that during overwhelming experiences, the mind may detach from reality as a form of self-preservation. Rather than engaging with the external world, the traumatized individual may enter an altered state of consciousness, in which the ordinary system of self-defense ceases to function. As Herman (1997) notes, this dissociative response resembles the instinctual reaction of animals who freeze when attacked, unable to act or escape (p.42). In Oskar's case, this mental paralysis manifests when he is confronted with the final phone call from his father during the 9/11 attacks. Like a "frozen" animal, he becomes psychologically immobilized and cannot bring himself to answer the call. Oscar interprets this failure as a moment of estrangement which becomes a source of lasting guilt.

Throughout the novel, Oskar's traumatized memory replays his father's final messages. Each time, he recalls more detail, but he still fails to process the overwhelming emotional impact. His persistent sense of guilt reflects Judith Herman's (1997) argument that "feelings of guilt are especially severe when the survivor has been a witness to the suffering or death of other people" (p.54). Oscar fails to transform his traumatic memory into a coherent narrative. When such overwhelming experiences remain unintegrated with the present cognitive system, they manifest as "self-destructive behavior" (Van der Kolk & Van der Hart, 199, p.176). Since he cannot express his grief, anger, or remorse, he resorts to self-inflicted punishment: "Why didn't he say goodbye? I gave myself a bruise. Why didn't he say 'I love you'?" (Foer, 2005, p.207). As a result of his anger due to trauma, Oskar distances himself from everyone, especially his mother. He believes that she is not as mournful as

himself; because instead of "adding to the Reservoir of Tears," he sees her "?spending? so much time laughing with Ron" (p. 52). Herman (1997) affirms that traumatized individuals, like Oskar, often feel completely forgotten, detached, and isolated from "the most intimate familial bonds to the most abstract affiliations of community and religion" (p.52). This statement shows Oskar's unstable relationship with his mother. Oskar's repressed emotions and painful experiences surface in impulsive fits of rage. At one point, this culminates in his telling his mother, 'If I could have chosen, I would have chosen you!' (p.171). Although Oskar feels very ashamed of himself right after uttering these words, he is unable to manage his impulsive anger.

In the novel, Oskar's journey to find the lock that links to the key left by his father symbolizes a process of recovery from trauma which marks his attempt to bring together with his father's death. Oskar is driven by a strong need to understand the circumstances of his father's death. He carefully examines newspapers and digital archives to find any visual evidence. In this pursuit, he sees numerous videos depicting bodies falling from the World Trade Center, including the iconic image of the "falling man" whom he imagines could be his father. This act of projection enables him to replace unbearable uncertainty with a more tolerable version of reality: "There's one body that could be him. It's dressed like he was … sometimes I can see glasses. Or I think I can. But I know I probably can't. It's just me wanting it to be him', 'You want him to have jumped?', 'I want to stop inventing'" (Foer, 2005, p.257). In response, Oskar makes a flipbook from still frames of the falling man. When he flips it, the images make it look as if the man is rising instead of falling. This act symbolizes a reversal of the story, allowing Oskar to regain some control over his broken memories and work through his grief. The recurring appearance of the falling man photo in *Extremely Loud and Incredibly Close* reflects the involuntary resurgence of Oskar's trauma as he repeatedly envisions the circumstances of his father's death. However, these visual fragments, while potentially offering understanding what may have occurred, fail to provide the closure Oskar seeks. As Bazoon (2018) argues, such images "do not add to Oskar's knowledge of how and in what ways his father has died; unfortunately, they result in renewing the sense of shock and re-visualize 'the fixed moment' of trauma again" (p.181). The photographs do not help Oskar understand the event. Instead, they increase his psychological suffering by creating a haunting memory in his mind. Thus, the images turn into a medium through which Oskar remains trapped in the past.

As Oskar holds onto the memories of his father with a sense of desperate devotion he attempts to remember every possible detail associated with him. Hoping to uncover some hidden message or any information concerning his father, he makes a city-wide quest to contact every individual with the surname "Black". However, due to the reenactment of his trauma in every

contact, Oskar realizes that he longs to see his father more than ever: "even though the whole *point* was to *stop* missing him" (Foer, 2005, p.255). Throughout his search, Oskar shares his deepest emotions not with his family, but with strangers. When he ultimately discovers the true owner of the key, the outcome is deeply disheartening. The key, which he had believed to be a meaningful sign left intentionally by his father, turns out to be unrelated, a mere coincidence. This realization devastates him, as it ends the emotions he has maintained through his search: "'I found it and now I'll wear heavy boots for the rest of my life? I wish I hadn't found it. … Looking for it let me stay close to him for a little while longer.' 'But won't you always be close to him?' I knew the truth. 'No'" (pp.302-304).. In the final stage of Oskar's journey, when his expectations are not fulfilled, he gets closer to his mother. He discovers that she has been aware of everything he has experienced, including his father's final messages during the attacks and the key hidden in the envelope. Oskar releases his repressed emotions, showing that he has made significant efforts to cope with his trauma. He expresses hope for the future, promising that he "is going to be better soon" (p.323). In the early stages of his father's death, Oskar tended to disconnect from his traumatic experiences through repression. Now, however, he is able to express his intense grief. Although the search for the lock does not allow him to fully overcome his trauma or reconnect with his father, it improves his relationship with his mother.

Conclusion

The September 11 attacks have affected the United States in many ways, including intellectual, social, financial, and political spheres. At the same time, this tragic event is recorded as one of the most traumatizing events that have had destructive effects on individuals. The fall of the towers created a significant sense of emptiness that many perceived it as a symbolic wound to the national self. Neil Leach (2003) argues that human beings often equate themselves with buildings and identify with them, such that when the built environment is damaged, it is experienced as a personal loss or injury. The destruction of such iconic structures thus produced not only physical devastation but also psychological dislocation. It is evident that one of the national responses to such an unprecedented tragedy emerges as a concept of collective trauma. Collective trauma disrupts the shared systems of meaning that hold a society together. The implications of 9/11 cannot be fully understood without also addressing individual trauma, which, in contrast, is shaped by personal psychological damage and experience. While collective trauma is a shared disruption that affects the core structures of a society, individual trauma reflects the intimate, internalized struggle of the affected person.

Beyond the psychological explanations and interpretations of trauma, it is essential to consult trauma theory in literature to define the characteristics

of a traumatizing event and its effects on individuals. Influenced particularly by Cathy Caruth's theories, trauma is often represented as an individual's response to an overwhelming, unexpected, and catastrophic incident, expressed through uncontrolled and recurrent flashbacks, daydreams, and nightmares. Trauma cannot be fully accessed immediately after the event; rather, it emerges belatedly and continues to affect the person persistently. Moreover, trauma is not only a confrontation with death but also encompasses the challenge of managing life in the aftermath of survival.

Don DeLillo's *Falling Man* depicts a post-9/11 atmosphere characterized by confusion, disorientation, and a persistent struggle to grasp the enormity of the event. While the novel portrays the broader scope of collective trauma, its primary focus lies in revealing how a catastrophic experience can fundamentally alter and destabilize an individual's psyche. Through the fragmented lives of the Neudecker family, Don DeLillo scrutinizes the deep psychological breaks caused by the attacks and shows the survivors' struggle to find a reality that no longer feels coherent. In order to depict the unspeakable nature of psychic trauma, DeLillo deliberately employs a non-linear narrative structure, temporal disjunctions, repetition, ambiguous dialogue, and shifting points of view. These structural techniques reflect the broken mental states of his characters and the collapse of conventional understanding. In *Falling Man*, memory is not healed but re-enacted; trauma is not overcome but continually relived. The novel ultimately circles back to its traumatic origin and suggests that for those directly affected, the experience is not past, it is endlessly present.

In Johnatan Safran Foer's *Extremely Loud and Incredibly Close* centers on a child's perspective of trauma which offers a different narrative lens through which the aftermath of 9/11 is presented. Oskar is too young to fully comprehend the historical or political dimensions of the attacks and experiences his grief in an unreal and confusing world. His emotional response is filtered through childlike judgement which leads him to engage in idiosyncratic behaviors, such as inventing fantastical tools and getting on an obsessive quest across New York City. In the final part of his quest, as he cannot reach a closure, he begins to reconnect with his mother upon realizing that she has been aware of his emotional struggles all along. Contrary to his earlier belief that he is mourning alone, Oskar discovers that his mother has quietly supported his quest and also ensuring his safety without interfering directly. This revelation ends in the most heartfelt exchange between mother and son since the "worst day," during which Oskar sheds the emotional restraint he has long maintained and openly admits the difficulty of his healing process, assuring her that he is going to be better. At first, Oskar copes with his trauma through repression and distancing himself from others in order to make sense of his father's absence. By the end of his journey, he begins to integrate his

grief into his conscious experience through verbal expression and emotional vulnerability. Although the search for the lock ultimately fails to bring him closer to his father or resolve the mystery he hoped it would, it leads instead to a renewed connection with his mother and marks a critical turning point in his psychological recovery.

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Chapter 7

CHATGPT AND DEEPSEEK COMPARISON IN TEXT GENERATION AND DATA ANALYSIS PROCESSES IN SOCIAL SCIENCES

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1. Introduction

Artificial intelligence (AI) technologies have gained significant momentum with the adoption of generative artificial intelligence (GAI) technologies by society from 2023 (Yoşumaz, 2025). However, the concepts of GAI and AI are different. GAI is a type of AI developed in the field of natural language processing (NLP). The rapid rise of GAI can be attributed to its ability to quickly and effectively generate data and information needed by businesses, academics, students, and society in general. One of the most important practitioners of GAI technologies on a global scale was OpenAI by 2025. The GAI application called ChatGPT, developed by OpenAI, has attracted great interest from users in almost every sector. So much so that ChatGPT took the lead among the most downloaded applications in mobile application stores. However, in 2025, a new GAI application called Deepseek, announced by Hangzhou Deepseek Artificial Intelligence Co., Ltd. and Beijing Deepseek Artificial Intelligence Co., Ltd. in China, gained popularity in a short time (Deepseek, 2025a). Deepseek, which was already in use before 2025, managed to attract the attention of large segments of society with its R1 model, released in 2025. The concept of R stands for "reasoning" ability. Thanks, in particular, to its free, open-source structure (Deepseek, 2025b) and its ability to generate quality content at a level comparable to ChatGPT, it has taken the top spot in mobile application stores (Apple, 2025). In this context, the emergence of an alternative to ChatGPT, which has been the subject of many academic studies, has been one of the main determining factors in the preparation of this study. The innovative features offered by Deepseek and its social impact provide an important basis for future research in this area.

Studies on the use of GAI technologies in the academic setting examine in detail the impact of these technologies on educational and research processes. The factors influencing the use of ChatGPT by university students in Pakistan have been investigated, revealing that trust mediates the relationship between self-efficacy and usage (Shahzad, et al., 2024). In addition, it was emphasized that ChatGPT provides significant benefits to students for information and interaction purposes (Shahzad, et al., 2025). GenAI has gained a permanent place in education and has been shown to improve students' academic communication skills, although ethical concerns should also be considered (Liu et al., 2023). A decision-making framework for the ethical use of ChatGPT and similar AI applications in education has been proposed, emphasizing the importance of addressing ethical issues such as academic integrity, safety, and bias (Bukar et al., 2024). An approach based on interdisciplinary collaboration and theoretical knowledge is necessary for the effective use of ChatGPT in education (Liu et al., 2023). AI tools improve the quality of research by increasing the efficiency of academic processes, though there are limitations such as accuracy and ethical concerns (Panda and Kaur, 2024).

Tools such as ChatGPT are useful for tasks like grammar checking and text structure editing, but they are limited in terms of critical thinking (Perplexity, 2025). ChatGPT can be used as a supportive tool in content production and research processes, but human supervision and participation are essential (Nikolopoulou, 2024). AI tools provide efficiency in tasks such as content editing and student assessment in the academic world, but educators need to emphasize their critical thinking skills by improving their digital literacy (Barros et al., 2023). The impact of generative AI and social media on students' academic performance and psychological well-being has been examined, emphasizing the importance of personalized learning approaches (Shahzad, et al., 2025). The adoption of GenAI tools needs to be addressed with ethical considerations, and further research is required on how faculty members perceive related policies (McDonald et al., 2024). GAI tools provide students with individualized learning paths and support learning through mistakes, although privacy and ethical concerns may pose barriers (Sánchez-Prieto et al., 2025). In a study on the use of generative AI in academia, similarities between texts generated by ChatGPT and those prepared by human intelligence were compared, concluding that the texts were similar in terms of subject matter integrity (Yoşumaz, 2025).

Although there are many studies in the literature on the use of ChatGPT GAI application in the academic field, there is no study comparing ChatGPT and Deepseek GAI applications in terms of academic text production and data analysis processes. This study aims to fill this gap and provide a detailed review of the Deepseek GAI application according to scientific methods. In addition to systematically compares ChatGPT and Deepseek by considering the role of GAI applications in academic research in the context of academic text generation and data analysis. Although the academic use of ChatGPT has been studied extensively in the literature, it is one of the first studies to evaluate the impact of Deepseek in the social sciences after its increasing popularity with the R1 model. In this respect, it makes a unique contribution to the literature. In addition, Deepseek is open source and can be installed on local servers, making it one of the first reviews of data security and the use of standalone AI applications in academic research, another important contribution to the literature. The following research questions will be addressed:

RQ1. What are the similarities and differences between the ChatGPT and Deepseek GAI applications?

RQ2. What are the similarities and differences between the results of ChatGPT and Deepseek?

RQ3. What benefits can Deepseek bring to universities in AI technologies?

Descriptive content analysis, case study, and document analysis methods were used to achieve the study's objective. The sample of the study consists of ChatGPT-4 (ChatGPT), Deepseek R1 Cloud (Deepseek Cloud) and Deepseek R1 Local (Deepseek Local) applications. According to the results of the study, it was concluded that ChatGPT and Deepseek R1 Cloud applications are similar to each other in terms of generating academic outputs, Deepseek Cloud application generates outputs that are more appropriate to the given prompts, Deepseek Cloud can be used as efficiently as ChatGPT in the academic field, and Deepseek Local can be used by academic end-users (lecturers, researchers and students) working and researching in English.

2. Material Method

Document analysis, one of the qualitative analysis methods, was used to answer the first and third research questions RQ1 of the study. Document analysis can be used as a stand-alone qualitative analysis method or it can be preferred to support other analysis methods. In this study, document analysis was used as a stand-alone method. The documents analyzed are presented in the reference column of Table 1 for RQ1 of the study.

To answer the second research question (RQ2) of the study, descriptive content analysis and case study methods were used as qualitative analysis methods. The population of the study consists of all GAI applications. Due to time and work constraints, the Deepseek and ChatGPT applications, which are the most downloaded applications in mobile application stores worldwide, were selected as the sample of the study. Since both cloud-based and local versions of Deepseek were analyzed, the sample consisted of three applications, namely ChatGPT, Deepseek Cloud, and Deepseek Local. The nomenclature of Deepseek Cloud and Deepseek Local is specific to this study based on the environments (cloud or local servers) in which the applications run. The Deepseek R1 Distill Qwen 7B model was analyzed in the LM study as part of the Deepseek local evaluation. Evaluations in Deepseek Local were performed with Apple M3 10-core GPUs and 16 GB RAM. When the term Deepseek is used alone in this study, it should be understood as an overview of the AI model developed by Deepseek.

Due to the lack of previous studies on Deepseek Cloud and Deepseek Local applications, the researchers designed a case study to examine the use of AI in academia more comprehensively. This case study investigated the use of GAI applications in the academic field. In the case study, the selected GAI applications were used to generate academic texts of no more than one Word page in the areas of marketing, human resources, accounting, finance, and production. Due to time and manpower constraints, the production of academic texts was limited to the field of social sciences and, within this field, to economics. Accordingly, each GAI application was given the prompts in

Table 3 and the documents resulting from these prompts were named as outputs. For example, the text generated by ChatGPT under the p1 prompt was named oc1 output, the text generated by Deepseek Cloud was named od1 output, and the text generated by Deepseek Local was named odl1 output. In addition, an Excel document consisting of a and b variables with N=400 and values between 1 and 5 was generated, and whether the variables in this document were normally distributed was examined using the SPSS program. Then, a correlation analysis was performed using the SPSS program, and the results were recorded. Then, ChatGPT and Deepseek applications were activated to analyze this data and the results were recorded.

During the design of the case study, to ensure the reliability of the study, the prompts given to the GAI practices were evaluated by three researchers who are experts in their fields. As part of the evaluation, the researchers were asked about the appropriateness of the prompts, the appropriateness of the case study process, and the appropriateness of the selected GAI applications, and received eight agreements and one disagreement. The disagreement was that the Deepseek Local application was not appropriate for the research. The expert stated that Excel documents cannot be analyzed with Deepseek Local. In this context, the reliability of the case study design of the study was calculated according to the Miles and Huberman model and was found to be 88% with the formula reliability = agreements (8) / (disagreements (1) + agreements (8)) (Miles and Huberman, 1994).

The case study was designed according to the diagrams shown in Figure 1 and Figure 2. These diagrams explain in detail the methodological approach of the study and the data collection process.

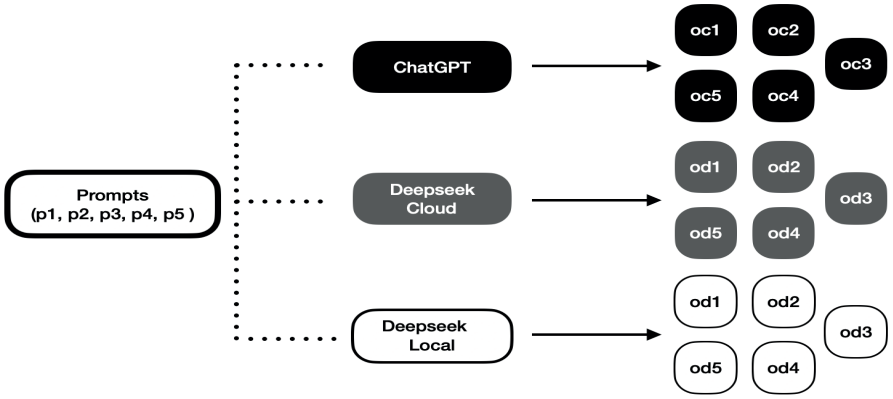

Fig. 1. *Case study design for the assessment of text generation outputs in English (Authors Elaboration)*

In the process of evaluating the outcomes presented in Figures 1, each outcome was scored by three expert academics and the researchers conducting

this study. The scoring criteria were set at three levels: "high" (2 points), "medium" (1 point), and "low" (0 points). The total score is determined by summing the scores. A total score of 0-3 indicates low academic usability, 4-7 indicates moderate academic usability, and 8-12 indicates high academic usability. This scoring system was designed specifically for this study by the researchers together with the experts who conducted the evaluation in order to make the evaluation process easy and understandable. During the evaluation process, one of the three expert researchers gave a negative opinion, while the remaining five gave a positive opinion. The reliability of the assessment was calculated according to the model in Miles and Huberman. Accordingly, the reliability rate was found to be 83% using the formula reliability = agreements (5) / (disagreements (1) + agreements (5)). This scoring and rating system was designed to ensure an objective and consistent analysis of the results of the study and supports the methodological integrity of the research.

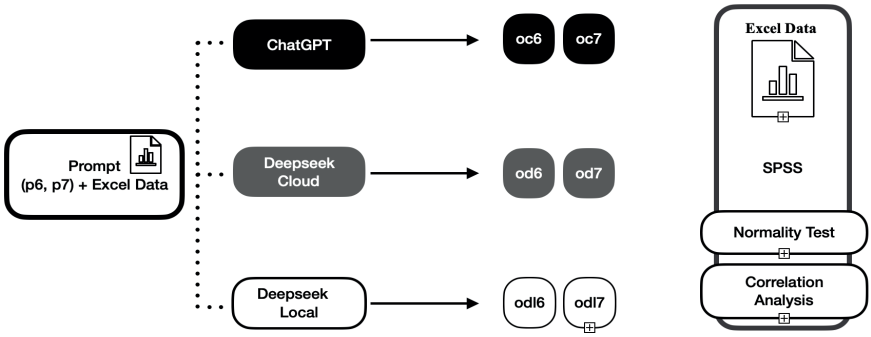

Fig. 2. *Case study design for the assessment of data analysis outputs (Authors Elaboration)*

Document analysis was used to answer the third research question (RQ3) of the study. The documents used are all references in the answer to research question RQ3.

2.1. RQ1. What are the similarities and differences between the ChatGPT and Deepseek GAI applications?

GAI is a type of AI that can generate various types of content such as text, audio, video, and images (Yoşumaz, 2025). In the context of GAI, the term "generating" basically refers to the process of analyzing data and knowledge. This can be considered within the framework of analyzing data and information, which is an important stage of knowledge management processes. Therefore, the text, audio, video and images genarated are the outputs of analyzing data and knowledge.

ChatGPT and Deepseek are GAI applications developed in the Natural Language Processing (NLP) subfield of AI (Yoşumaz, 2025). NLP is an AI discipline that emerged with the goal of understanding and analyzing human language and generating similar content based on it. ChatGPT and Deepseek use large language models (LLM) of AI to generate textual content (Eke, 2023; DeepSeek-AI, 2024).

OpenAI uses the Generative Pre-trained Transformer (GPT) technology, a self-developed LLM model (OpenAI, 2025). Deepseek, on the other hand, uses the Mixture of Experts (MOE) LLM model, called DeepSeekMOE (DeepSeek-AI, 2024).

While both applications are successful at generating textual content, ChatGPT, DALL·E and Sora excel at generating image and video content (Mbalaka, 2023; Chen et al., 2024). Deepseek's image generation application, Janus Pro, is currently being tested (Januspro, 2025). However, Deepseek has not announced any features for generating video content. There is a fee to use ChatGPT's image and video content generation applications. As of 2025, the monthly fee is $20 for image content and $200 for video content (ChatGPT, 2025).

ChatGPT has a free version for everyday tasks (OpenAI, 2025a). Deepseek is currently completely free for individual end-users (Deepseek, 2025c). ChatGPT also offers a Plus version for individual end-users, which allows higher-level operations that cannot be performed in the free version, such as more analysis and more professional text generation (OpenAI, 2025b). Both applications charge fees for their services to corporate customers through the Application Programming Interface (API) feature (Chui et al., 2022; Deepseek, 2025d). However, the open-source nature of Deepseek has made a significant contribution to the field of AI by allowing corporate users to run their own AI models on their own servers (Deepseek, 2025d). For example, corporate users who want to add AI support to their software can do so for free by installing the Deepseek application on their own servers instead of using ChatGPT's API feature. In this context, the Perplexity AI application, by moving the Deepseek application to its data center in the United States, can satisfy users' need for knowledge on a specific topic with the Deepseek AI infrastructure (Perplexity, 2025).

ChatGPT learns using supervised learning (SL) and reinforcement learning (RL) methods (OpenAI, 2025b). However, the goal is to use human feedback to make the learning process more efficient and the answers generated more accurate. Especially for ChatGPT API applications, the necessary fine-tuning can be done by business users. Deepseek uses supervised fine-tuning (SFT) and reinforcement learning (RL) techniques (DeepSeek-AI, 2024).

The comparison between ChatGPT and Deepseek is detailed in Table 1. This table compares the technical features, use cases, and benefits of both applications.

Table 1. ChatGPT versus Deepseek.

	ChatGPT	**Deepseek**	**References**
Technology of AI	NLP LLM (GPT)	NLP LLM (DeepseekMOE)	Eke, 2023; Guo et al., 2025
Learning	SL + RL	SFT + RL	Deepseek-AI, 2024; Yan and Xu, 2024
Text Generation Capabilities	Yes	Yes	Deepseek, 2025b; Mbalaka, 2023; Yoşumaz, 2024, 2025
Opensource	No	Yes	Deepseek, 2025b
to install on your own server	No	Yes An open-source version can be downloadable and installable	Deepseek, 2025b
API support	Yes	Yes	Chui et al., 2022; Deepseek, 2025d
Image Generation Capabilities	Yes with Dall-E	Yes with Januspro	Open AI, 2025c; Januspro, 2025
Video Generation capabilities	Yes with SORA	No for now	Open AI, 2025b
Reasoning	Yes	Yes	
Voice Responds	Yes	No	Open AI, 2025a
Pricing	- Free for daily tasks, - 20 $ more efficient AI models and image generation, - 200$ for video generation.	Free for now.	Deepseek, 2025d; OpenAI, n.d.
Developing Country	Amerika	Çin	Deepseek, 2025a; Open AI, 2025b
Developing Company	OpenAI	Hangzhou Deepseek Artificial Intelligence Co., Ltd., and Beijing Deepseek Artificial Intelligence Co., Ltd	Deepseek, 2025a; Open AI, 2025b

2.2. RQ2. What are the similarities and differences between the results of ChatGPT and Deepseek?

The academic text generation and data analysis capabilities of both GAI applications were evaluated to answer the research question.

2.2.1. Academic Text Generation Capabilities of ChatGPT and Deepseek

In order to compare the performance of both GAI applications in generating academic texts, the prompts p1, p2, p3, p4 and p5 presented in Table 3 were used and the outputs corresponding to these prompts were analyzed in detail. In the evaluation process, an assessment was made based on the four main criteria presented in Table 2, and in line with these criteria, the academic text generation capabilities of ChatGPT and Deepseek were analyzed comparatively.

Table 2. Evaluation criteria.

Generated Topic Consistency	The generated text was examined for subject consistency to determine whether it maintained thematic coherence and avoided deviations from the topic.
Generated Relevant Output	The generated output was evaluated to assess the extent to which it met the requirements of the given prompt.
Generated Content Accuracy and Usability	The accuracy, reliability, and suitability of the knowledge presented in the output were examined to determine whether it could be evaluated within the scope of an academic text.
Hallucination	The presence of incorrect or misleading information in the output was analyzed. Such occurrences are referred to as a metaphor for hallucinations in GAI applications, drawing an analogy to human cognitive intelligence.

Table 3. Prompts.

Prompts	Values
p1	Can you generate content that fits on a single Microsoft Word page about the use of artificial intelligence in the field of marketing?
p2	Can you generate content that fits on a single Microsoft Word page about the use of artificial intelligence in the field of human resources?
p3	Can you generate content that fits on a single Microsoft Word page about the use of artificial intelligence in the field of accounting?
p4	Can you generate content that fits on a single Microsoft Word page about the use of artificial intelligence in the field of finance?
p5	Can you generate content that fits on a single Microsoft Word page about the use of artificial intelligence in the field of manufacturing?

In order to evaluate the efficiency of GAI applications in academic text generation, the outputs corresponding to the p1, p2, p3, p4 and p5 prompts presented in Table 3 are presented in Tables 4, 5, 6, 7 and 8.

Table 4. Evaluation of oc1, od1 and odl1 outputs.

p1 output comparison	ChatGPT **(oc1)**	Deepseek Cloud **(od1)**	Deepseek Local **(odl1)**
Generated Topic Consistency	10	12	12
Generated Relevant Output	9	12	12
Generated Content Accuracy and Usability	12	12	10
Hallucination	0	0	0

Table 5. Evaluation of oc2, od2 and odl2 outputs.

p2 output comparison	ChatGPT **(oc2)**	Deepseek Cloud **(od2)**	Deepseek Local **(odl2)**
Generated Topic Consistency	12	12	12
Generated Relevant Output	9	12	7
Generated Content Accuracy and Usability	12	12	10
Hallucination	0	0	0

Table 6. Evaluation of oc3, od3 and odl3 outputs.

p3 output comparison	ChatGPT **(oc3)**	Deepseek Cloud **(od3)**	Deepseek Local **(odl3)**
Generated Topic Consistency	12	12	12
Generated Relevant Output	9	12	8
Generated Content Accuracy and Usability	12	12	10
Hallucination	0	0	0

Table 7. Evaluation of oc4, od4 and odl4 outputs.

p4 output comparison	ChatGPT **(oc4)**	Deepseek Cloud **(od4)**	Deepseek Local **(odl4)**
Generated Topic Consistency	12	12	12
Generated Relevant Output	10	12	7
Generated Content Accuracy and Usability	12	12	10
Hallucination	0	0	0

Table 8. Evaluation of oc5, od5 and odl5 outputs.

p5 output comparison	ChatGPT **(oc5)**	Deepseek Cloud **(od5)**	Deepseek Local **(odl5)**
Generated Topic Consistency	12	12	12
Generated Relevant Output	11	12	6
Generated Content Accuracy and Usability	12	12	10
Hallucination	0	0	0

As a result of the evaluation of Tables 4, 5 and 6 together, it was observed that the outputs generated by both Deepseek Cloud and ChatGPT GAI applications were close to each other in terms of subject consistency, accuracy of information and misrepresentation of information evaluation criteria. The results generated by both applications are indicative for academic researchers and can be used in scientific studies. However, there is a significant difference between the two applications in terms of compliance with the given prompts. The outputs generated by ChatGPT generally did not fill a Word page and were on average half a page long. This indicates that ChatGPT does not fully comply with the given prompts. On the other hand, the output generated by Deepseek Cloud was almost a full Word page long and fully complied with the prompts. This result shows that Deepseek is better able to handle prompts p1, p2, and p3.

As a result of the evaluation of Tables 7 and 8 together, it was found that the outputs generated by both Deepseek Cloud and ChatGPT GAI applications within the prompts p4 and p5 are close to each other in terms of subject consistency, accuracy of information, presentation of false information, and compliance with the given prompt. The results of both applications provide guidance for academic researchers and can be used in scientific studies.

The evaluations in Tables 4, 5, 6, 7 and 8 show that Deepseek Local can also be used to generate academic texts and guide researchers.

2.2.2. Data Analysis Capabilities of ChatGPT and Deepseek

To evaluate the data analysis capabilities of ChatGPT and Deepseek, the prompts p6 and p7 shown in Table 9 are presented with an Excel dataset and the corresponding outputs are analyzed in detail in Table 10 and Table 11. In order to correctly evaluate the p6 and p7 prompts, the Excel data set was transferred to the SPSS application and the analyses requested in the prompts were performed using the SPSS program. This process allowed the accuracy of the responses generated by ChatGPT and Deepseek to be compared with the SPSS results, providing an objective measure of the performance of both

applications in data analysis. To do this, two variables, a and b, were defined in an Excel spreadsheet and 400 mean scores ranging from 1 to 5 were added for each variable. This data set was used to evaluate the ability of the applications to perform normality analysis and correlation analysis. Normality analysis of the data set was performed using the Shapiro-Wilk test. In addition, the skewness and kurtosis values of the data were calculated using the SPSS application and the results are presented in Table 10. Correlation analysis was performed for variables a and b in the data set. This analysis was performed using SPSS and the correlation coefficient is presented in Table 11.

Table 9. Data analysis prompts.

p6	Can you do the Shapiro-Wilk normality test for variables a and b from the data in the excel document I sent you. Can you also calculate the Skewness and Kurtosis values?
p7	Can you do a correlation analysis for variables a and b?

As part of the study, the results obtained by ChatGPT and Deepseek were compared with the results obtained by SPSS, and these comparisons are presented in Table 10 and Table 11. In these analyses, skewness and kurtosis values were calculated as important parameters that are examined when the data are not normally distributed as a result of the Shapiro-Wilk test. The focus of this evaluation is not whether the data are normally distributed or not, but how these values change in SPSS, ChatGPT, and Deepseek and how the statistical analysis capabilities of the applications differ.

Table 10. Evaluation of oc6, od6 ve odl6 outputs.

p6 output comparison	**SPSS**	**ChatGPT (oc6)**	**Deepseek Cloud (od6)**	**Deepseek Local (odl6)**
Skewness Value	a: -1,067 b: -0,745	a: -1,0629 b: -0,7403	a: -0,45 b: -0,32	It cannot process data from Excel documents.
Curtosis Value	a: 1,117 b: 1,360	a:1,0886 b:1,3230	a: 3,12 b: 2,89	It cannot process data from Excel documents.
Shapiro-Wilk p-value	a: 0,000 b: 0,000	a: 7.42e-15 b: 2.60e-11	a: 0,0001 b: 0,0005	It cannot process data from Excel documents.

Table 11. Evaluation of oc7, od7 ve odl7 outputs.

p7 output comparison	**SPSS**	**ChatGPT (oc7)**	**Deepseek Cloud (od7)**	**Deepseek Local (odl6)**
Pearson Correlation value (N=400)	0,256	0.2556	0,2548	It cannot process data from Excel documents.

When Tables 10 and 11 are evaluated together, it is seen that the skewness and kurtosis values calculated by ChatGPT are closer to SPSS results than Deepseek. Shapro-wilk normality test results of all three applications are close to each other. It is seen that the Pearson Correlation value generated by ChatGPT and Deepseek is close to the value generated by SPSS.

2.3. RQ3. What benefits can Deepseek bring to academia in AI technologies?

The use of GAI applications in the academic field can be examined in two parts. The first is the use in applied sciences or natural sciences fields such as engineering, medicine, physics, and the second is the use in social sciences. The use in the scientific field is generally related to the integration of AI or GAI applications suitable for the research topic at the software code level. In the social sciences, it is related to the use of GAI applications developed in the context of the end user. Making these two distinctions first is important in order to structure the processes related to the use of GAI applications in academia more easily and efficiently.

GAI applications are among the most widely used tools in science thanks to their API features. Projects with software infrastructure in science can get AI support thanks to the API feature of GAI applications. The most important GAI application is ChatGPT, developed by OpenAI (Yoşumaz, 2025). Therefore, ChatGPT's API features can be used in such projects. However, ChatGPT's API feature is paid. Although companies such as OpenAI offer free or discounted API services to educational institutions such as universities, the data developed in the project will be processed outside the country. This is an important issue, especially in terms of data security (Li, 2023). Since there is no open-source version of ChatGPT that can be installed on a local server, it may pose a significant data security threat to countries other than the United States. The open-source software infrastructure of Deepseek is very important for ensuring data security (Goldsteen et al., 2023), for universities and other educational institutions and even for all countries with a broader perspective. Because the Deepseek can be installed and customized on the servers of any company, university, or institution (Spirling, 2023). In this context, it has become easier for experts in the field of AI at universities to deploy the university's own infrastructure of AI in projects to be carried out in the field of science. This situation can be compared to open-source operating systems. Like open-source operating systems, open-source AI applications can be configured in an institution-specific way. In this way, institutions may not have to pay extra for the API service of proprietary applications.

In contrast to project developers, end users of GAI applications in the applied sciences try to gain efficiency from their work by guiding the developed GAI-based software with their theoretical knowledge. The end user can be a

pharmacist, a doctor, an engineer, a teacher or a student, depending on the field in which the GAI application is used. For such users, GAI applications act as a kind of virtual assistant (Dwivedi et al., 2023).

The usage scenarios of GAI applications in the social sciences are different from those in the natural sciences. Those who use GAI applications in the field of social sciences are called end users. In other words, the users who use the AI features provided to the applications developed by different people or organizations are end users. GAI users in the field of social sciences gain efficiency in their work by guiding the GAI application with the theoretical knowledge related to their field. In other words, GAI applications act as virtual assistants for the social sciences (Nikolopoulou, 2024; Shahzad et al., 2024).

In both applied and social sciences, an open-source GAI infrastructure that each institution can install on its own server is important in terms of data security, sustainable cost structure, developability, scalability, and learning. In this context, it is important that the Deepseek GAI application is open source and can be installed on local servers. Although only recently gaining popularity, Deepseek can be an important reference and starting point for organizations and even countries in the field of artificial intelligence.

3. Conclusion and Evaluations

The rapid development of AI and its widespread adoption in various fields since 2023 has had a significant impact on academic research processes. In particular, the use of GAI applications developed in the field of natural language processing is increasing in academic studies, and this topic has been extensively covered in the literature. Until 2025, ChatGPT was the leader in the GAI market and managed to attract the attention of both individual and corporate users thanks to its innovations. However, in 2025, with the announcement of the R1 model of the GAI application called Deepseek, Deepseek gained great popularity. The fact that Deepseek is open source, can be installed on personal computers, is offered free of charge, and has reached a similar level of success as ChatGPT in terms of content generation has strengthened its position among GAI applications.

This study compares ChatGPT and Deepseek generative AI applications in the context of academic text generation and data analysis. In the evaluation process, both the cloud-based version of Deepseek (Deepseek Cloud) and the locally installed version (Deepseek Local) were analyzed. In terms of academic text generation, ChatGPT and Deepseek Cloud have similar capabilities and it is difficult to determine a clear superiority between these two applications. However, it should be noted that ChatGPT has been around for about two years and Deepseek has only recently become popular. Both applications can help researchers in the academic writing process, facilitate literature review, and guide them in developing solutions to research problems. Although

Deepseek Local is close to the ChatGPT and Deepseek Cloud applications in terms of success in academic text generation, it is not yet considered to be suitable for data analysis.

The data analysis capabilities of ChatGPT and Deepseek were compared with SPSS. Findings indicate that the data generated by ChatGPT largely aligns with SPSS results. In contrast, Deepseek Cloud generated results similar to SPSS in some datasets, while deviations were observed in others. These findings suggest that ChatGPT has the potential to serve as an alternative to SPSS in the future. However, it is essential to acknowledge that GAI applications occasionally generate hallucinations, necessitating caution in data analysis processes. Despite this limitation, the ability of generative AI applications to generate results comparable to SPSS presents a significant advantage for researchers. By leveraging these tools, researchers can allocate more time to analysis rather than expending effort on data processing and formatting, thereby enhancing the scientific value of their studies.

The study also explored the potential for Deepseek Local to be run and customized within the university's own infrastructure. This feature is believed to be a competitive advantage for GAI applications. In particular, it is estimated that corporate users may prefer Deepseek Local over ChatGPT and thus create their own AI infrastructures. When the same situation is evaluated in terms of governments, the fact that Deepseek Local can be customized and used independently by each institution or government, similar to Linux infrastructure, offers a significant advantage. In this way, both cost savings and data security concerns can be addressed.

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