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Prof. Dr. İrfan YILDIZ Assoc. Prof. Dr. Salih BATAL

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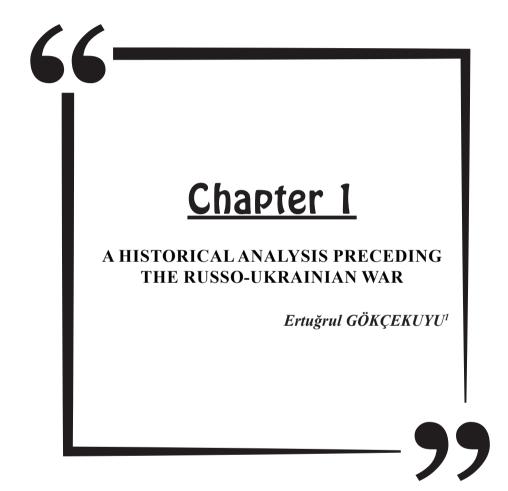
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INTRODUCTION

When we look at levels of analysis in relation to the two world wars, we see the interplay of certain systemic, domestic and individual events deeply interacting with each other constructing complex layers that are reasonably explanatory and insightful to why states eventually get sucked in to wars. In fact, the study of International Relations demonstrates that no conflict occurs overnight. In both world wars a good amount of time and a certain number of events precede eventual untieable knots. These blind knots on the timeline have their own unique constituting characteristics with horrendous destruction as end results. However, both world wars being responsible for the killings of countless lives and being unprecedented in their violence and devastation have led to lessons learned cementing today's international order. Regional organizations such as the NATO belong to these lessons learned but require nations to cooperate and commit to difficult tasks such as standing against out-of-control powers invading sovereign nations. In this article, I first argue that the Russian invasion of Ukraine did not start on the 24th of February 2022 but is the forth setting of the Cold War that never ended, it was only interrupted. This article provides an analysis of certain events on systemic, domestic and individual levels and comes to the conclusion that the invasion of Ukraine will not lead to a third world war. This at least not with Russia. Yet, the invasion of Ukraine shows that regional conflicts will continue until Russian security interests are met. Real reasons behind the invasion of Ukraine may be found in NATO isolation of Russia and Organski's transition period of global power struggle between the East and the West, which is why many more regional wars are to follow.

When Italy invaded Ethiopia in 1935 the newly established League of Nations condemned the Italian aggression as a violation of Article 16¹ of the charter of the League of Nations (S Jr & Welch David, 2011, p. 127). Yet, European nations were reluctant in imposing sanctions. Britain for example did not prevent the transportation of Italian ships through the Gibraltar that were used for the invasion of Ethiopia. The reasoning behind this reluctance was linked to the idea of European power balance that needed Italians as an allied force in the Triple Entente with Britain, France

¹ Article 16 of the League of Nations is as follows 'Should any Member of the League resort to war in disregard of its covenants under <u>Articles 12, 13</u> or <u>15</u>, it shall ipso facto be deemed to have committed an act of war against all other Members of the League, which hereby undertake immediately to subject it to the severance of all trade or financial relations, the prohibition of all intercourse between their nationals and the nationals of the covenant-breaking State, and the prevention of all financial, commercial or personal intercourse between the nationals of the covenant-breaking State and the nationals of any other State, whether a Member of the League or not. Any Member of the League which has violated any covenant of the League may be declared to be no longer a Member of the League by a vote of the Council concurred in by the Representatives of all the other Members of the League represented thereon.

and Russians against Hitler's Germany. However, Mussolini had decided to invade Ethiopia because of the first war that took place between Italy and Ethiopia in 1895. This earlier war between Italy and Ethiopia had led to a settlement in Addis Ababa in 1896 in favour of the Ethiopians. For Mussolini nationalism was inherent to fascism as an inevitable element for a nation to redeem its honour. Mussolini in "The Doctrine of Fascism" constructs fascism to be a doctrine that is a moral unified action of a people organized by the state authority and deems groups dutiful soldiers ready to fight and die by way of war and fighting which is the only way to reassert the Italian nation into the world once again (Mussolini, 2006). It is known that Europe was suffering grave internal social-economic domestic problems in the post-world war I era. As Nye Argues nations lose soft as well as hard power when nations' economies fail (Nye Jr, 2015, p. 62).

As a doctrine fascism echoes the "great again" or "best days are yet to come" slogans as the Italian nation once used to be in its heydays of the Roman Empire. Mussolini was reminiscing the historical memory lanes of the long-lost glory days of the Italian people. As Ian Shapiro points out, the Donald Trump campaign prior to 2016 elections, (Graetz & Shapiro, 2020, p. 5) was making use of a truth that is well known within the academia "that people are more powerfully motivated by the losses they experience or the anticipation of a prospect of gain". When looked closely Mussolini's doctrine basically is about the loss the people had suffered and that the best days of Italy were yet to come. The only need was a leader who would vocalize the bruised Italian national pride by constructing a national commonness determined and destined to rule lesser nations. Mussolini came to power in 1922, but it wasn't until 1932 that he documented his fascist doctrine which coincided with Hitler's rise and the Nazi socialist doctrine. Hitler too shared Mussolini's historical impediment of a bruised national pride and was already in the process of threatening neighbouring countries with his presence, ideas and accumulation of military power determined to get the French out of the Ruhr area.

Britons were once again witnessing Germany become increasingly intimidating on the European continent. Hitler believed in a great plan between life and death for more Lebensraum that was necessary for the future and survival of the race (Overy, 1982, p. 272). This mounting threat instigated the old habit to balance the power distribution throughout Europe. The novel members of the newly established League in Europe perceived Italy as a necessary actor to power-balance Germany and deemed the Italian invasion of Ethiopia as a distant crisis that could be dismissed against a bigger and more direct threat in Europe. Probably the most important failure prior to WWII was the inability to impose collective action in the invasion of Ethiopia and the failure of US to approve the very document that was supposed to give the League of Nations life.

The latter point had led to the failure and demise of the League of Nations as a crippled entity due to lack of commitment and judgement errors in the attitudes of the member states concerning the Italian invasion of Ethiopia. According to Nye such old habits as power-balancing lay as one of the reasons for the start of WWII. The idea of having a collective security structure and being committed to the idea was key to deter as well as stabilize a new international order. Regional and international collective efforts were also important to neutralize nationalism which according to Nve was another profound trigger for the start of WWII. Nationalism on the Balkans not only meant the end of imperial entities but also meant the start of a new era of modern nation-states. Both the Ottoman as well as Austrian-Hungarian Empires had fallen victim to Slav nationalism on the Balkans. As Mussolini Hitler too used nationalism, yet Hitler's narrative was explicitly more of a racial supremacy nature that turned out to be more dangerous for ethnic minorities. According to Nye Germany at the end of WWI could be appeased and reinserted back into the European concert but instead Germany was punished severely and suffered severe domestic problems such as an economic depression (Davidson, 1997, pp. 116–273) and a grave inflation that hurt the Germans even more. This collective reluctance indicates the degree of underestimation of a threat based on nationalism combined with national domestic disparities.

THE COLD WAR THAT NEVER ENDED

Building on Nye's argument about Germany in the last paragraph, Russia too could have been appeased and inserted into the NATO. Today we know from archival documents that the discussion on the topic of 'German unification' of East and West Germany was pivotal in the conversations between Western leaders and the Soviet leader Gorbachev (NATO Expansion: What Gorbachev Heard, 2017). The now disclosed archival documents show that Western leaders such as Margaret Thatcher, John Major, Helmut Kohl made numerous assurances to the then Soviet leader Michael Gorbachev that the NATO was not going to spread out into the former Soviet countries. We also know now that Gorbachev was actually not positive concerning these promises for Russia not to worry. Gorbachev even gave a speech that quoted as "... you may not humiliate a nation, a people and think that it will have no consequences" (Russia - Gorbachev comments on NATO expansion, 1997). Gorbachev was openly distrustful of these assurances and suspected an apparent "new strategy" by the United States, and if these assurances were to be part of a 'new game and if cards would be played against a nation, problems would not get solved' (NATO Expansion: What Gorbachev Heard, 2017).

Gorbachev's warning about the humiliation of a nation played out to be an important factor. Gorbachev warned the US Congress in 1997 that an incorporation of the former Soviet countries would work against the achieved good will. By attempting to include Poland, Hungary and the Czech Republic would in the eye of Gorbachev only enrich the popular support for nationalist feelings in the new established Russia. Gorbachev had even made an effort to be more persuasive by steering toward the real threat -without naming China- a new power becoming more independent and powerful in the Pacific. This observation meant for US and Europe to timely balance such a threat collectively by trusting and incorporating Russia into the collective efforts. The NATO needed Russia to balance this new rising power in the pacific. Yet, the NATO did expand under the Clinton administration in 1999 with three new countries, the Czech Republic, Hungary and Poland and this expansion did give rise to a new leader who would take these promises all too serious (Sarotte, 2014, p. 97).

Vladimir Putin came to power on the 31st of December in 1999. Yet, the issue about the NATO expansion has remained to be of critical interest for the Russian politics (Sciolino, 1994). The archival documents point to conversations between Gorbachev and Mitterrand where Gorbachev points his wariness and suspicion that the US efforts are to perpetuate NATO as a mechanism for managing world affairs (NATO Expansion: What Gorbachev Heard, 2017). He also pointed out his concern that United States was trying to attract East European countries to the NATO. Mitterrand responded that Eastern European countries could indeed join the NATO upon Gorbachev asked "what about the USSR joining?", (NATO Expansion: What Gorbachev Heard, 2017) we see that this question remained unanswered. Mitterrand was in favour of abolishing the NATO and believed that Gorbachev was indeed sincere in his intentions. However, Gorbachev was wandering if Russia was in talks for a pan-European joint idea then why were Soviet security interests unanswered and for that matter whether the assurances concerning the NATO expansion could be taken seriously? Wouldn't it be better, as Mitterrand had written to Bush Senior to accommodate the Russian security interests concerning the NATO? However, in 2004 the Clinton Administration included Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia and Slovenia were included into the NATO. This expansionist arguments toward the East today are still used by the Putin administration.

The Economic Argument Preceding Conflicts

Clausewitz's words "war is a continuation of politics by other means" comes to mind. Even though economic arguments are not considered to be sole causes of wars on their own, it is known that daunting economic circumstances have preceded wars contributing to the inclination to wage

wars. The breakdown of the USSR in 1991 combined with the Russian distrust in US sincerity concerning the NATO expansion did not provide essential incentives for Russian elites to perceive the benefits to democratize its political system. We do not know whether a fully democratized Russian political system would eradicate distrust towards the United States. However, we do know from archival documents that the United States failed to provide adequate incentives to institute reform that would have been necessary to further democratize Russia.

In the words of Yeltsin in his resignation speech "I ask for forgiveness for not fulling some hopes of those people who believed that we would be able to jump from the grey, stagnating, totalitarian past into a bright, rich and civilised future in one go. I myself believed in this" (Ellman, 2000, p. 14717). It was naïve to expect for the Russian economy to escape the gravitational pull of the Soviet command economy and the authoritarian character into a civilized politics. On the other side it was equally hard to escape the domination of the liberal market economy. The breakdown of the UUSR failed to create an efficient state apparatus that would strive for public interest, yet instead officials were opportunistically enriching themselves. Officials were buying cheap state bonds and selling these bonds back to the state for much higher prices. Russia was suffering in the hands of kleptocracy (Ellman, 2000, p. 1417). The Russian economy failed to diversify and remained dependent of oil and gas export making the Russian economy an oil cursed one. Research shows that there is a connection between oil wealth and authoritarianism (Bayulgen, 2005, p. 1). It is a well-accepted classification that Russia today is considered to be a mutant democratic regime or a semi-democratic regime with a high authoritarian character.

From a systemic perspective the collapse of the USSR meant a high level of global financial liberalization as a consequence of US influence. As the successor of the USSR, the newly established Russia had missed her chance to economically compete on a global level with Western countries, meaning the US and the EU. Especially deregulation and privatization of nations around the globe integrating these nations into the global financial infrastructure as well as opening up national economies to foreign investment and trade has created a new desire for many nations to leave statist policies and join the open market. Yet, the world has also witnessed an upsurge of local and regional conflicts and numerous proxy wars such as in Libya, Syria, Afghanistan and Iraq.

One of the serious problems in 2014 was the fact that European countries purchase their oil and gas supplies from Russia. Germany is the top importer of Russian crude oil and natural gas in the world and this dependence on Russia is part of the reason why NATO failed to speak in one voice against Russian incursion in 2014. This Russian offensive against the Ukraine ended up with the annexation of Crimea. It was not something that was high on Angela Merkel's agenda as she could not afford to antagonize the Russian regime, which provides a geopolitical strategic position that is desirable from the point of view of Putin to retain this powerful sector.

Russian Nationalism And The Expansion Of NATO

One of the key indicators prior to the first and second world wars was unquestionably nationalism. I analyse nationalism in this article from a domestic level of analysis as a major indicator that arises prior to conflicts and wars. "Acting in the name of national honour" (Organski, 1958, p. 13) has been an effective instrument of choice in the mobilization of ordinary people uniting them into soldiers who will defend and fight for their nations and countries. In the hands of authoritarianism nationalism renders to be a useful tool. The difference between patriotism and nationalism becomes evident when nationalism surmounts into an "...evil force of an unfortunate form of political organization ... nations that fought each other with fury that killed and maimed millions of men and blasted the cities and countryside of Europe and Asia in two world wars, suspicious and hostile, skirmishing in smaller wars, retaining the power to blow up the world whenever national interest commands it" (Organski, 1958, p. 13).

Van Evera defines nationalism as a political movement of individuals who become group members and are loyal to the groups with shared common values. Such a loyalty surpasses any other loyalties in the desire to obtain their own independent state (Van Evera, 1994, p. 6). Van Evera also answers the question whether nationalism is a cause of war. According to him the answer depends on the type of nationalism a group belongs to. One of these classifications is a situation of an existing national state with a dispersed or entrapped diaspora beyond state borders. In the advent of the Russian invasion one of the arguments was about the Russian minorities in Ukraine. Approximately 8 million ethnic Russians live in the Ukraine which is approximately 17% of the Ukrainian population. Whether this type of nationalism will cause a war according to Van Evera depends on whether a state will accept the continuation of a the displacement of its own citizens, or whether such a state would change strategy and attempt to include the displaced citizens within its own sovereignty. Then there are two alternatives for the incorporation of its diaspora. It can either accomplish this by immigration or by territorial expansion. Russia chose the latter over the former and advanced its forces towards Donetsk and Luhansk where the largest ethnic Russians reside. Russia had already annexed Crimea during the Ukraine conflict in 2014 where second largest Russian minorities reside.

One of the most important causes for the invasion of Ukraine concern the Russian minorities living in Ukraine, the (Volodymyr) Zelensky administration's willingness to join the NATO a red line crossing Russian security interests and the need to divert domestic attention towards the outside due to economic problems in Russia. As now well-known the 2008 NATO pronouncement to invite former USSR countries into the NATO (Georgia and Ukraine) had instigated a Russian counterreaction by invading Georgia, which has also had a massive and direct impression on Ukraine in 2014. We have seen the level of Russian determination in both Ukrainian and Georgian incorporations into the NATO. Russians' actions make it clear that they are fully prepared to continue if NATO keeps insisting on territorial expansion into former Soviet sphere of influence.

In 1998 Tom Friedman interviewed George Kennan, whose brainchild was the idea of containment of the Soviet Union. Kennan said during the interview "I think it's the beginning of a new Cold War...Russians will gradually react quite adversely and it will affect their policies. I think it's a tragic mistake. There was no reason for this whatsoever. No one was threatening anyone else. We have signed up to protect a whole series of countries, even though we have neither the resources nor the intention to do so in any serious way. NATO expansion was simply a light-hearted action by a Senate that has no real interest in foreign affairs ... Our differences in the cold war were with the Soviet Communist regime. And now we are turning our backs on the very people who mounted the greatest bloodless revolution in history to remove that Soviet regime. And Russia's democracy is as far advanced, if not farther, as any of these countries we've just signed up to defend from Russia'' (Friedman, n.d.).

As Kennan observed, the NATO expansion is by far the greatest tragedy and the blind knot of the whole debate on why Russians invaded Ukraine and Georgia. It shows how deeply the Russians are troubled by this expansion drift. The question remains as Kennan points out why the United States moves forward anyway with the expansion of NATO into Eastern European territories knowing that Russians will be bothered by it?

One explanation may be sought in the US wish to distract the attention of the electorate away from domestic problems towards the outside world. There was a time in the United States that even the unskilled workers had jobs that paid a living wage and lasted a lifetime (Graetz & Shapiro, 2020, p. 10). It was the American dream of a family in comfort where the husband could finance the whole family and even purchase a house with guaranteed fixed rate mortgages. Such a family could pay for housing and health insurance which was a small portion of the monthly wage.

For many American citizens upward mobility used to be real and quite possible (Graetz & Shapiro, 2020, p. 12). However, economic growth in the seventies started to level off and most incomes started to flattened (Graetz & Shapiro, 2020, p. 14). There was a deadly mix of inflation and economic low growth during the seventies also called stagflation. Almost all presidential candidates in the last three decades must address and appease the median voter if they want to be elected into office. Clinton, Bush, Trump all campaigned on fixing the economy, bring back lost jobs and revitalize industries that are now mainly offshore. All presidential candidates are under huge pressures to deal with the insecurity and inequality that the median American voter faces. American families find themselves under circumstances that they can no longer afford basic needs such as housing, health insurance or basically have some job security. Bernie Sanders campaigned that wealthiest 400 Americans own more than the bottom half of the population. All presidential candidates must face the bitter reality of a constituency-based political system (Graetz & Shapiro, 2020, p. 21).

On the other side there is another insightful explanation to how the individual level of analysis can affect and divert the public attention. The former US president Bill Clinton (1993 - 2001) was deeply unsettled by the two shot down American Black Hawks in Mogadishu Somalia. Eighteen US soldiers were dead and seventy-three soldiers were injured. Yet, the real bottleneck was the media attention of dead American soldiers dragged through Somali streets shown on US national TV (Dauber, 2001). Great fears in the Clinton administration had set of similar incidents happening. Clinton knew how bad this external adventure looked domestically and he became reluctant to get US soldiers involved in any type of conflict. Yet, in 1998 the sex scandal also known as the Monicagate (Van Boven, 1998) had become worldwide and in January 1998 Clinton made his famous television appearance. Clinton was unquestionably under great domestic public pressure and could have been the second American president to have been impeached. It is only a couple of months before this television appearance that Clinton signs the NATO Enlargement legislation (Williams & Delli Carpini, 2000), welcoming Poland, Hungary and Czech Republic which were incorporated in 1999.

Another explanation is to be found in the systemic level of analysis and China's rise, its rapid industrialization and its challenge of the United States (Organski, 1958, p. 360). Eventually, the United States would be isolated during the power transition by its allies (Organski, 1958, p. 485) and the American international order would start to shrink, which is something that started to happen during the Obama administration (Graetz & Shapiro, 2020) when the United States retreated from the Middle East. Organksi also addresses the question of whether a third world war would be a consequence of the contests between super powers (Organski, 1958, p. 488). Organski answers the question in a highly analytical way and argues that such a global war could only be possible if and when the military power of a challenging country would come to a level that nears the power of the US. It would be a real threat when the friendly relationships would be jeopardized. Organski predicts that only China has the means to surpass the power of the United States and therefore a war is rather probable with China and not with the USSR or Russia in today's terminology. Organski predicted that China's next generation leaders will perpetuate (Organski, 1958, p. 488) the tendency to militarily compete the US-dominance, which according to John Mearsheimer will not be peaceful (Mearsheimer, 2006, p. 160).

CONCLUSION

In this article I looked at certain events at systemic, domestic and individual levels in relation to what the invasion of Ukraine means to world peace and security. On a systemic level I observe that NATO which was established against the threat of a possible Soviet attack, was not abolished even though the Soviet Union had ceased to exist. This observation may suggest that if Russia had ceased to be a threat it could have been incorporated into the NATO. Also, since Gorbachev's and Yeltsin's overtures on NATO-membership were left unanswered it must be the case that the NATO do not trust neither the old nor the new Russia. Either way the logic does not make much sense when Kennan's words are taken into consideration. Yet, there is also the idea of appeasing Russia and providing necessary incentives for a nation to consolidate democracy. Gorbachev's warning that such a behaviour could spark conservative sentiments became reality. Also, Kennan's remarks that a NATO expansion would provoke unnecessary Russian policies and a new Cold War are among important observations.

This observation falls in line with the way Germany was treated after the first world war. Germans were treated quite harshly after the first world war, which caused Germany to fall deeper in an economic turmoil. The interwar period had brought about authoritarian leaders who were nationalistic and determined to redeem their national pride. A similar situation could be said about Putin as an authoritarian leader who shared Gorbachev and Yeltsin's distrust in the NATO. Obviously, the existent domestic circumstances of the Third Reich and Mussolini's Italy created fertile grounds for Germans and Italians to fall for the Nazi and Fascist ideologies. Russia too has domestic issues and is an oil cursed economy (Treisman, 2010, p. 2) and wasn't able to diversify its economy. As any peoples in the world in the words of Kennan the Russian people too deserve higher standards of living who fought off communism. Yet the most prominent failure in the advent of WWI was the unwillingness of the novel members of the League of Nations to commit themselves to collective sanctions. Today, even though the NATO failed to appease Russians, commitment of NATO-members to impose collective sanctions could be the necessary deterrent for further escalation of the Ukraine invasion further into Scandinavian countries. As seen with the recent German reluctance to aid Ukraine in order not to aggravate Russians is not an alternative in the de-escalation of such a regional conflict.

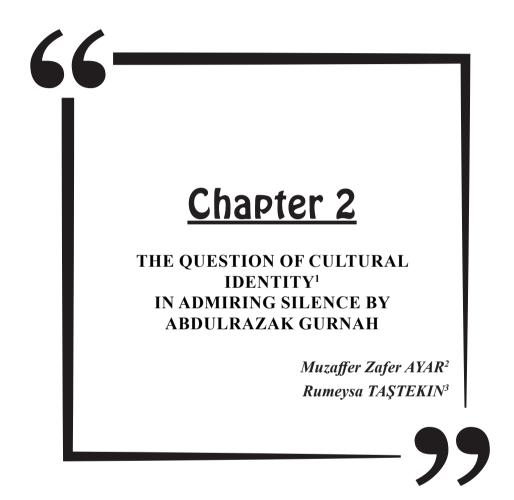
The NATO expansion lay in the root cause of the Russian policy toward Georgia in 2008 as well Ukraine in 2014 when it became clear that the Russian base at Sevastopol was going to be jeopardized if Ukraine had joined NATO. It now shows that the humiliation of a nation does create necessary conditions for a birth of a nationalist leader. As Organski predicted half a century ago a third world war with the Russians is not a realistic expectation. It seems that Russia is about the hurt of a distrusting NATO that did not keep word to not incorporate the Warsaw Pact countries. Russia is about the humiliation and not wanting the presence of a powerful global distrusting entity on its doorstep. Russia will be all about preserving its historical and territorial influence area and will demonstrate its military determination as it did with Georgia, Ukraine and annexation of Crimea and it will not allow any distrusting entity near its sphere of influence. But it will stop after having achieved a balance of power and redeeming its national pride.

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14 · Ertuğrul GÖKÇEKUYU



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Introduction

It would not be incorrect to claim that colonialism was fed from the imperialist point of view as the building block. While imperialism can be boiled down to dominance, colonialism can be perceived as an absolute occupation that has greater outcomes. "Imperialists did not aim for settlement unlike colonialists, but they rather aim to expand their territory and dominate a land due to economic, religious and political reasons" (Şimşek, 2021, p. 8). Moreover, imperialism may only be counted as an idea that triggers colonialism in the way to be perfected. To make a long story short, imperialism served its purpose as the inspiration for colonialism to stand as a great dominion in front of the world. The point will be clearer when the definition of colonialism is made by Hiddleston as "conquest and subsequent control of another country and involves both the subjugation of that country's native peoples and the administration of its government, economy and produce" (2014, p. 2). With colonialism, imperialist thought reached more serious dimensions than the idea of mere superiority; so much so that the idea of dominance became rather an innocent thought. The 'conquest' endured not only with state organs but also with the enslavement of people, so to speak. Not that hard to predict, "subjugation of a particular country's native people" did not have a heart-warming ending at all on the contrary it left many striking effects that are irretrievable but need to be put down on paper. In this sense, first colonial literature and later post-colonial literature provide reflective and deeper sources about colonized people's perspectives.

In parallel with colonialist activities that not only imposed an unbalanced power but also altered so many things radically, native people of colonized countries have developed many devastating feelings in return for alterations. The most significant thing to highlight is the urge for resistance when a country is under occupation. It is also a predictable fact that indigenous people do not content with obeying colonizers who come to claim themselves superior. This idea is supported by Edward Said (1994), who observed the fact that "it was the case nearly everywhere in the non-European world that the coming of the white man brought forth some sort of resistance" (p. 12). Native people faced changes in their hometowns leading them to lose their traditions. As their traditions faded away, their hometown was becoming a place that they no longer were familiar with; therefore, they both lost their safe zone and felt insecure. Instead of living according to their traditions, they have mostly been imposed on practices of imperial culture. Education policies were carried out and privatized by colonizers rather than traditional methods. For instance, many British schools, where Abdulrazak Gurnah has been educated in one of them, were opened to provide education, therefore he knew English well before he moved to England. They tried to raise children according to a language and culture of a society that they did not feel they belonged to. The result was that children grew up with confusion about both themselves and unfamiliar cultural values. This made people feel subaltern in their own country, and inevitably they felt inferior. The feeling of being underclass has done heavy damage both at the time they were present and later on. All in all, having been exposed to imperial culture, brought so many socio-cultural issues within itself. Additionally, instability in the economy and policy forced people to maintain a life of poor quality. At this point, a new term "Third World" that needs to be stressed has appeared to refer to that kind of underdeveloped and colonized country that is mentioned above. Ashcroft et al. mentioned the term as "a general metaphor for any underdeveloped society or social condition anywhere" (2000, p. 212). People of Third World countries could not bear these worsening conditions that were worsening and eventually sought ways to emigrate. The younger ones found a qualified education opportunity and a way to get rid of the stifling atmosphere by studying abroad as in the case of Abdulrazak Gurnah himself. Also, in one of his interviews, he talked about the sufferings that happened after Zanzibarian Revolution "thousands were slaughtered, whole communities were expelled, and many hundreds imprisoned. In the shambles and persecutions that followed, a vindictive terror ruled our lives" (Guardian, 2001). This statement of him reveals the extent of ferocities that they had to go through. Eventually, due to Zanzibarian Revolution, there was no opportunity to educate themselves properly in such a country whence he migrated to the United Kingdom.

The post-colonial period which is the "period coming after the end of colonialism" (Sawant, 2012, p. 120) could not be regarded as an entirely separable period from colonialism. It can be said that post-colonialism is a continuation of the colonial period; while colonial literature comprises circumstances of the colonial period, post-colonial literature comprises its inner effects on people who had to struggle. Dizayi pointed out the same issue by saying "postcolonialism concerns the effects of colonialism on cultures and communities which are originally historians used it after WWII referring to the post-independence time" (2015, p. 999). How much do indigenous people forced into displacement suffer from maintaining their life under the circumstances that they hardly fit into constituted post-colonial discourse? So, a particular need for expressing inner confusion of them has ended with the emergence of post-colonial literature in the end as Ella Shotat defines the post-colonial framework as "the Third World diasporic circumstances of the last four decades ---from forced exile to "voluntary" immigration" (1992, p. 102). Whether it is forced exile or voluntary immigration it creates the same identity issue on behalf of displaced people from colonized lands.

According to Chan (2014), post-colonialism appeared first in Edward Said's anti-imperialist speech that turned eventually Commonwealth Literature into post-colonial literature in 1989 at a conference of the University of Kent. The speech seemed about not only against imperialism but also against the despotism of Western authorities. However, reducing post-colonialism only to the term "anti-colonialism" and comprehending it this way would be a misjudgement. Even though post-colonialism has the characteristic of reacting against colonialism, it provides deeper and more involved reflections of the damages of colonial rule. Constant opposition of post-colonialism towards colonialism should not be assessed as one-sided, instead, it was regarded by some as multiple-sided, ceaseless, and indefinite examination in nature (Hiddleston, 2009). The examination stated here stands for the constant seeking of the diaspora's views sophisticatedly. Additionally, Sorensen stated that the late 1980s counts as the sprawl date of post-colonial research at an academic level using Neil Lazarus's Resistance in Post-colonial Africa (1990) which runs into the same date as Said's speech (2014). Considering these, it can be said that post-colonialism emerged in late the 1900s and got popularity later on.

On the other hand, cultural identity, which turns into a prevalent issue in post-colonial discourse, was defined by Paleczny and Zieliński as "a kind of consciousness of individuals, which is ordered as a group, based on the common elements of heritage, tradition, symbols, values and common norm" (2008, p. 356). It is a dynamic factor that is trying to keep itself awake; it always tries to survive in any environment because of human beings' unconscious need for a particular root or culture. In this sense, everyone tends to develop his or her own cultural identity either intentionally or unintentionally. However, it must be shaped in compliance with some features of a certain culture. Only when someone lives in an unbalanced society in which he or she determines his or her status as an outsider, it becomes a crisis and creates chaos. Being a subaltern makes a way for a cultural identity crisis. It is concluded that when someone separates a community apart or does not count a society as an integral whole, his or her notion of identity starts with questioning where he or she belongs to. So, there should be "self" and "others" to stimulate understanding of cultural identity. Here is a supportive claim about this: "The identification of an individual or a group or a nation in postcolonial terms as one notice easily is linked to the "other", that means they recognize themselves "us" with the existence of the "other" (Dizavi, 2015, p. 1000). Therefore, it can be concluded that opposite identities in a certain society feed on each other and play a determinative role in a process of decision.

What makes it so prevalent in post-colonial literature is the fact that diasporic people have had issues of cultural identity all the time throughout history due to the transmissions they have gone through and the alterations they have always observed around themselves. As soon as they moved to the heart of a rather different culture, their disputable cultural identity began. The cultural identity they have acquired so far gradually begins not to adapt to the latter one; therefore, they should have shaped a new cultural identity for themselves. Stuart Hall (1989) has already asserted identity's variability and dynamicity, so it would be accurate to say that cultural identity can show itself in different versions and can be diverged either gradually or not. However, the issue of cultural identity cannot be cured easily since the traumas that colonial activities left behind are unforgettable and immigrants were undervalued so much that it damaged their psychological condition. Instead, these issues have occupied their mind for long years. Some of the hybrid writers have expressed their inner confusions and have produced plenty of works of art in return that includes cultural issues dealing with in the light of post-colonial literature. In this sense, Abdulrazak Gurnah is among these hybrid writers who is a Zanzibarian refugee himself. "Gurnah's fiction is peopled with immigrants, refugees, asylum-seekers, self-exiles, diasporic groups, travelers, as well as locals from Zanzibar and Britain - recognized as homeland or hostland, depending on the direction of migration" (Soleymanzadeh, 2021, p. 13). Therefore, he can be also assumed as one of the authors who shaped post-colonial discourse with the main themes of his works. Like his other works, Admiring Silence was written in a way that a hybrid character perceives a hostile and stranger world that became his living space. The character has so many questions that result in silence in the end, and he struggles with the thought of belonging nowhere anymore. The aim of the novel is to emphasize issues of cultural identity therefore this study will focus on Admiring Silence in terms of its protagonist's crisis of cultural identity which need to be analyzed. Among these cultural identity crises, this study is going to elaborate on the concepts of a sense of belonging, hybridity, and in-betweenness which were asserted by Homi Bhabba in his The Location of Culture (1994). All in all, Admiring Silence (1996) is going to be analyzed in connection with Homi Bhabba's critical terms.

Sense of Belonging

A sense of home is not something that someone is able to easily build in mind; for a person to count a place as home, he or she must feel attached to it, it takes a long time to form, though. Dislocation makes people feel as if they are homeless and consequently puts them on a quest. In this way, losing the sense of home directly damages the sense of belonging of a person to a great extent. My second emphasis is Bhabha's theory of the "sense of belonging" which is occurring constantly in post-colonial literature. Bhabha deals with the lack of sense of belonging as "unhomeliness" which

he also describes as "the estranging sense of the relocation of the home and the world in an unhallowed place" (1994, p. 9). In post-colonial discourse, it first comes out of the dislocation that refugees have gone through, later makes ground in a personality due to lack of orientation to any society. Once someone starts feeling a lack of sense of belonging, it is something that does not leave someone easily, pauses his or her life, and brings about him or her to scatter hopelessly. It is the thing that awakes uncanny feelings in Admiring Silence's (1996) protagonist and affects his life drastically. He highly suffers from a lack of sense of belonging in many ways. After a while, trying to accept a place as home again, the main character gets tired and feels that he is starting to lose his sense of belonging. For instance, he considers himself "unhomed" from the first day he took refuge in England, however, "being "unhomed" is not the same as being homeless." (p. 421). The home mentioned here does not refer physical home of someone, instead, it refers to someone's mental image of home (Tyson, 2006). It means the character can have his physical home, yet he still feels refugee inside due to the lack of sense of belonging to a particular culture. These psychological processes have so many outcomes, for instance, the lack of sense of belonging led him to think that everyone around him, even objects, treats him as hostile. As it can be seen, not belonging to a place not only changes his perspective on the environment but also brings the feeling that everyone is an enemy towards him. He speculates too much since he is constantly in search and questioning. In the end, overthinking both cuts him off from his own life and causes him to become a quieter person. Considering all, a lack of sense of belonging gives people endless psychological uneasiness and takes away their happiness in the new place where they are trying to keep up with the conditions and survive.

In-betweenness

In-betweenness which is not so different from hybridity represents being stuck between two cultures. While hybridity contains a mixture of various cultures, in-betweenness derives from the confusion of having been exposed to two different cultures. There is no question of surrendering completely to the identity formed by any culture. The person is aware that he does not belong to a particular culture in his inner world. As Bhabha stated in the *Location of Culture* (1994), the person is "neither the one nor the other" anymore (p. 25). In this way, this kind of person does not compromise entirely with an exact identity. If the person is really wanted to be identified completely with one of the two cultures, it will be the person who cannot thoroughly provides the requirements of both. So, it is concluded that for this type of person there is no real belonging to only one culture. Another important issue is that in-between people are torn between not only cross-cultural but also their past and future. Since the fact that it is possibly tough to go beyond the damaged past entirely, getting used to the new culture is relatively hard. In return, the character cannot become integrated with both the past and present. Eventually, in the quest for meaning, they may relate their homeland to the past (Çelikel, 2011). While his past represents the former culture to which he was exposed, the present is identified with the recent foreign culture.

Hybridity

The first theory that needs to be elaborated on should be hybridity since it is an inclusive term and has a wider meaning that embodies migrants overall. Hybrid is used for people who are involved in two or more cultural identities. Bhabha (1994) refers to hybridity as a person "in-between the designations of identity" (p. 5). A hybrid person has gathered at least two cultures under one roof in the process of forming his or her cultural identity. With another definition, it stands for the "mingling of once separated and discrete ways of living" (Smith, 2004, p. 250). In this sense, these two ways of living must be completely different from each other so that mixing at the same time creates a psychological dilemma in people's minds. Any two cultures in which lifestyles are similar could not create contrasts and do not complicate one's life as tough as a hybrid person. Therefore, like Gurnah, "African subject represents a hybridity, a difference 'within', a subject that inhabits the rim of an 'in-between' reality." (p. 110). Hybridity was also made up for referring to the bonds between West and East which are put together in the same person, accordingly, it functions as "the connective tissue that constructs the difference between upper and lower, black and white.". It is supposed to combine the differences between the status of two cultures and then create connectivity. Harris (2008), contributing to Bhabha with his idea, suggested that hybridity is a meeting point of two cultures but not ignoring differences but blending them with each other. It requires not forgetting their own culture but somehow adjusting to the two cultures.

Representation of Sense of Belonging

Under the title of the discussion, this study is going to focus on how theories of Bhabha are reflected by Gurnah. He makes use of post-colonial theory; his characters consist of asylum seekers, immigrants, refugees, self-exiles, and diasporic groups as Solaymanzadeh mentioned (2021). Such minority groups face hostility and discrimination; bad attitudes toward them make the adaptation impossible which is already tough enough. Overall, "post-colonial theory is born out of the colonized peoples' frustrations, their direct and personal cultural clashes with the conquering culture, and their fears, hopes, and dreams about the future and their own identities (Bressler, 2011, p. 202)". Alongside these dreadful feelings, identity can be

regarded as the main problem in Admiring Silence too. Gurnah has created a character with a postcolonial identity which "is necessarily a dynamic, constantly evolving hybrid of native and colonial cultures." (Tyson, 2006, p. 422). The main character always seeks an identity that makes it dynamic and challenges cultural differences. In the midst of this quest, he is troubled by unhomeliness, in-betweenness, and hybridity. As the essential and prevalent theory of Admiring Silence (1996), this the first part of the study will begin with the theory of unhomeliness. "Regardless of the reasons for immigration, people face trauma as a result of unhomeliness and ambivalence they feel in the colonizer's land." (Simsek, 2021, p. 16). Simsek also added that these traumas derived from their adaptation issues to the Western culture. These traumas do not let the character feel belonged to any place and the quotes directly address his absence of a sense of belonging. These trauma-centered crises should not be underestimated as in the case of Zohdi's opinion, it is unhomeliness that causes them to lose their identity. So, it is needed to refer to the first time when the main character has felt a lack of sense of belonging. The first quote will be the primary step for all the subsequent crises indeed.

I was astonished by the sudden surge of loneliness and terror I felt when I realized how stranded I was in this hostile place, that I did not know how to speak to people and win them over to me, that the bank, the canteen, the supermarket, the dark streets seemed so intimidating, and that I could not return from where I came – that, as I then thought, I had lost everything. Then Emma came and filled my life. I can't describe that. (p. 71)

His sense of belonging issue reveals itself in his early days. He labels the place as "hostile" which may pose a threat that can suddenly harm him due to his strangeness. The land makes him feel so insecure that it awakens creepy feelings toward surrounding objects. He does not seem comfortable even when he speaks with the people with whom he must communicate like employees; therefore, carrying out the daily requirements becomes torture for him. Also, the streets come to be 'dark' for him because he looks at them in the way he feels. If he felt comfortable, he would likely describe the streets in a more optimistic light. In this way, his alienation highly impacts his perception of his environment. However, the idea of returning to his homeland is an improper possibility because he thinks that he lost there too by settling in England. Then, he meets Emma, his partner, so his life becomes more meaningful since he has an intimate connection from now on. Finding her may be associated with finding almost a motivation for going on with life. In other words, living in England has become bearable after he and Emma get closer to each other. However, this connection ends with the fact that England is nothing more than Emma for him and he could not exceed the feelings derived from being an outlander. Our unnamed character mentioned this fact with very clear statements: "I don't think I ever got over those early days, though. Even after all these years, I can't get over the feeling of being alien in England, of being a foreigner. Sometimes I think that what I feel for England is disappointed love" (p. 166). This quote takes place on the plane when he is heading for his homeland during a conversation between him and a hybrid woman whom he meets for the first time. As they continue to talk, they realize that they have been suffering from the same problems. As the woman expresses herself, the problems of the main character also come to the light. He thinks that he is still struggling with getting used to a new country after decades. Despite the fact that many years passed in England; he has not found an attractive aspect of England except for Emma. Then, he arrives in Zanzibar and considers more about the enlightenment that came to him on the plane. He realizes precisely the bitter fact that the notion of home stands for Emma but not England for him as if he was aware of this before, yet he admits it recently.

I wished that I was away from there, that I was back in Battersea with Emma, back home. It wasn't England that was home (so you can roll back the red carpet, or file away, if you care, reproaches against the alienated native), but the life I had known with Emma. It was the secretest, most complete, most real part of me. I knew that now, and wanted to finish with what needed to be said and done and return to her, return from here that is no longer home. (p. 139)

Here, the author has uttered the word "home" as a concept that needs to be emphasized. The image of "home" cannot be reduced to the image of a place where one sleeps at night and pays the rent regularly. Rather, "to be unhomed is not to be homeless, nor can the 'unhomely' be easily accommodated in that familiar division of social life into private and public spheres" (Bhabha, 1994, p. 9). Bhabha's emphasis matches up with this quote in terms of the home implication. The implied unhomeliness demonstrates being unplaced in a society that ruins your social relations including family matters. If a society or country makes you feel comfortable enough to call it "home", it means that you feel like you belong there. It is no secret that the character does not feel British therefore he admits that Emma is the only reason for wanting to return to England. And, he adds that it is pointless to blame him for being an 'alienated native'. From this, it can be deduced that he is not able to completely alienate himself and that he is not satisfied with his life. He implies that there is no reason to exclude him from his relatives who condemn him as an alienated native since he knows that he has no sense of belonging to England, either. He does not think he is in an enviable position as much as it is unreasonable to blame and exclude him while he is dealing with that feeling of alienation. Apart from England, Zanzibar does not seem like "home" to him also. The "here" that he stated at the end of the quote addresses Zanzibar and clearly, the character does not feel close to the place where he was born too. The following quote will reveal the reason why he lacks a sense of belonging to Zanzibar:

What I saw when I went wandering in the old town was what I had already been warned to expect: whole areas where houses had been allowed to collapse, gloomy, shut-up streets which had once been clamorous bazaars, broken drains releasing sewage into the narrow streets, where it snaked in little stinking streams through which people walked. It was far too deliberate and pervasive to be neglect it was more like vandalism. (p. 92)

Although he has accustomed himself to the idea that the streets of his country are no longer the same as they used to be, still he is devastated by the atmosphere that he has encountered. There is no sign of a joyful city with bazaars or a spirited rush. The city no longer looked neglected but more like a victim of vandalism. These circumstances make it difficult to internalize his own country when a person who has not been in his country for a long time encounters such a scene returns. In this way, it can be concluded that the atmosphere that he faced may trigger the deficiency of some feelings which ended in losing his sense of belonging. Later in the story, he also defines what his homeland seems to him; he chooses the word "nightmare" to clarify his line of vision: "All these years they had worried, or at least she had worried, that I was living alone and dejected in a strange land because my home had turned into such a nightmare" (p. 148). Here, the implied 'she' addresses the character's mother, and 'they' is his Zanzibarian family. He guesses that his mother is worried that he is feeling lonely and alienated, but his homeland is also a nightmare. Neither the current country identified with hostility feels like home, nor the demolished homeland. The most significant quote about his absence of a sense of belonging can be observed in the following correspondence with Akbar who is the stepbrother of the unnamed character. Akbar is also the person who accuses his brother of being indifferent and alienated. "Come home, Akbar said, as he closed his letter. But it wasn't home any more, and I had no way of retrieving that seductive idea except through more lies. Boom boom" (p. 176). The protagonist turns back to England and is shaken by what he has gone through there. Emma confesses that there is someone else in her life however it is not unpredictable news for him since they do not have a strong bond anymore. After being informed about this, Akbar corresponds with the main character, whose emotional bond with England is completely cut off. Akbar tells his brother that he has no reason to stay there anymore and asks him to return home. Yet the concept of "home" is already lost for his brother therefore it is pointless to move there anymore. As it is stressed before, he notices his lack of sense of belonging before, however, he presses these thoughts in his own way or covers them by telling lies to himself. Now that he is beyond the cross, he confesses his disturbing inner senses. Eventually, a clearer awareness of his actual feelings confronts him with other mental burdens about his character: "I was a pitiful vagrant, living a life of bondage and unfulfillment, a stranger, an alien, without any particular distinction or use in that place, but that I no longer had any choice" (p. 148). Since the feeling of alienation always maintains to take place in his mind, it greatly harms his personal development. He never finds a chance to reveal his real capacity in society because he does not belong to any walk of society. He does not take any initiative to show his difference due to the fact that he constantly feels under pressure. As he mentioned, he is aware that he is indistinct in England, yet he is so hopeless that he does not try to change this. This feeling of oppression becomes a very common behaviour for him, and he starts not to put his real opinion against anything, avoiding any challenge. Then he turns into a very quiet and obscure character; he insists on being silent towards not only his mother by not writing letters that talk about Emma and Amelia who is their daughter but also Emma and Amelia. It is a fact that "Gurnah"s novels are also much related to what the characters do not or refuse to say. The character's "silence expresses more about them than their utterances, thus becoming more important than articulation in the novels" (Arslan, 2014, p. 2). Characters' quietness and thoughtfulness are a part of Gurnah's intended message. In fact, he may imply that people mean many things with silence, so to speak, silence speaks louder than words. Even the book's name may derive from his indistinct character which is emerging as silence. However, "Silence can perform a function and should be confused neither with absence nor with powerlessness" (Helff, 2015, p. 162). Therefore, we should not claim that his silence derives from his weakness, we could not interpret his silence like this. Also, both Arslan and Helff agree with the idea that Gurnah uses silence as a different tool for communication; it is the way his characters express themselves. Considering all, these non-adaptation issues are hurting his self-esteem. He defines himself as inadequate, undeveloped, and unhelpful to society. At that point, he underestimates himself to a great extent just as he thinks that society classifies him as useless. It is a common case that is happened to people who have been both colonizer land and colonized land. Being inferior's negative impacts occur in such kind of a person as unhomeliness (Şimşek, 2021). At the same time, he knows that he has to maintain his life with these difficulties because he is also sure about the fact that he is trapped in England. There is no way out since his only option is perhaps a place that is stranger than England.

In-between Identities

In-betweenness, which is difficult to distinguish from the sense of belonging, but still has sharp distinctions, is Bhabha's second theory that was exemplified in *Admiring Silence*. This study will deal with the parts when the main character is stuck entirely between two different realms. In addition to feeling homeless with the sense of belonging theory, within the concept of in-betweenness, he loses his way in the middle of differences between two cultures, and he cannot realize who he is. This stuckness has expanded to the point where he questions whether he has an identity or not. While the character lodges in the search of his real personality throughout the novel, Gurnah has already dropped us a hint about his dilemma by not giving a name to the main character. Leaving our main character unnamed brings to mind the idea that Gurnah may have done this on purpose. Perhaps Gurnah has tried to emphasize the character's identity crisis and in-betweenness by not naming him.

Also, there is a historic figure who is mentioned in the earlier pages of the book. The reason why Gurnah tells the story of Pocahontas lies behind the fact that he must have associated the unnamed character with Pocahontas. The unnamed character makes it clear in the next quote that he compares himself to Pocahontas: "And what's wrong with a little detachment and a certain dignity in bearing in the face of adversity? What's wrong with being like Pocahontas?" (p. 9). At this point, it is necessary to mention a little about who Pocahontas is. Pocahontas, who is the daughter of the chief of an Indian tribe, was taken as a prisoner by the English colonialists in the 17th century. During her captivity, she got married an English man and was converted to Christianity. While trying to adapt to their lifestyle, she struggles so much that she stays in-between. Clearly, she is a representative of such people who are in-between since the fact that "when people of a specific culture and nation leave their homes and migrate, a sense of loss is always with them. Consequently, they begin to imagine their homelands through some scraps of the past" (Zohdi, 2018, p. 148). In the end, she realizes that it is difficult to put her identity into other shapes and enters a process of acceptance. She accepts that she could not acquire a culture because being exposed to two completely different cultures left her in-between. Clearly, the unnamed character feels intimate with the story of Pocahontas, thinking that they went through the same processes. Both Pocahontas and the main character rarely feel attached to their environment and stand proudly in the face of contrasts. Marder (2006) asserts an expression to those who have failed to keep up with the place they had settled, he called them as "living ghosts". And becoming a living ghost could be regarded as one of the outcomes of the traumas we mentioned under the title of "sense of belonging". The trauma which makes a person living ghost can be named post-immigration trauma. "Post immigration trauma, stress, and flashbacks happen when an asylum seeker, immigrant, and settler do not fit into the world of the West." as in the cases of both Pocahontas and the protagonist (Şimşek, 2021, p. 16). Also, he does not feel uncomfortable comparing himself to Pocahontas, on the contrary, he talks as if he acts like Pocahontas is the most natural reaction. He sees no problem adopting anonymity after being stuck between contradictions. However, the main character's daughter disagrees with her father. They are always quarreling on this issue in the story. The next quote was said to her father by Amelia during an ordinary argument between them: "You can bully me if you like, but it doesn't prevent you from being a failure" (p. 14). Amelia often thinks that her father cannot overcome the lack of sense of belonging and in-betweenness originating from being alien. That is why she blames his father most of the time. She wishes his father to adapt to life there because she grasped the fact that he could not achieve anything without adapting to the place where they live. She does not hesitate to say that his father could not gain adequate respect in society and has not completed his personal development just because he is stuck in the middle. She even goes so far as to call his father a failure in this part. Then his father answers her offensive claims as follows: "'I'm not a failure,' I shouted at the closed door. 'I'm a tragedy. This dead-pan world is full of chaos and I am one of the lost"" (p. 14). In this part, it can be deduced how much our main character feels pity for himself. He does not see the inner turmoil he is in as his own failure, on the contrary, he thinks that he is experiencing misfortune. He characterizes himself as a tragic hero who falls victim to the chaos that is going on in the world.

It is so easy to encounter the word 'lost' in the entire book, Gurnah uses it for the second time to define the character in the upcoming quote. "You're lost now,' he said. 'Not only to us, but to yourself. Just like your father" (p. 154). Being lost can be explained as a symbol of not knowing which culture to adopt. This statement belongs to Uncle Hashim. Like all his other relatives, he sees no hesitation in criticizing our protagonist. Yet, the owner of this criticism does not aspire to the unnamed character, as the hero leads a completely different life in Europe. On the contrary, he emphasizes that this situation causes him to have an identity conflict and to stay in the middle. By using the word "lost", he actually thinks our hero does not belong to their own culture anymore. However, he also realizes that the person he criticizes is now lost in himself, too. It means that he does not have a Zanzibarian identity but also, but does not belong to England, either, which may be an example of in-betweenness. This fact can be mostly seen in hybrid characters. "In spite of the fact that they leave their homelands in order to find welfare, and perhaps peace, they lose various things; their identities above all" (Şimşek, 2021, pp. 21-2). They flee to live a qualified life but reach a more traumatic conclusion that leads them to lose their identity. Even though their vital standards are good, the lack of identity greatly harms their inner peace. It is a very predicted and dra-

matic end for them to be referred to as lost after all. There is also another person who believes that he is in between identities: "Then you're lost," the branch chairman said without any hesitation, making Uncle Hashim smile with recognition. 'You've lost yourself, and you've lost your people. A man is nothing without his people" (p. 157). What the chairman and Uncle Hashim are emphasizing can be an indicator of the same issue. The chairman implies that the main character's emigration to another country is at the beginning of the chain of events that causes him to be described as "lost". According to him, with the migration of the main character to another country, he distanced himself from his own people. The bond between someone and the people of his country helps him not to lose his way and to hold on to life more tightly. Therefore, losing people of origin can be equated with losing yourself. Besides, it can be said that it is difficult for someone who is not at peace with the people of his own country to adapt to a completely different group of people. In short, the branch chairman has concluded that the inability of the character to integrate with his own people means that he cannot integrate with other cultures, either. All in all, the most significant conclusion that can be drawn from this quote is that the character is caught between two cultures. In fact, he is highly aware that he is in between and suffering from it so much. It can be observed from this statement of him too: "But mainly I sobbed for myself, for the shambles I had made of my life, for what I had already lost and for what I feared I was still to lose" (p. 153). He is narrating his sorrows originated from worries to lose identity. These kinds of identity crises and "such mental dilemma gives rise to tension and unrest" to him (Giri, 2019, p. 190). The things he has already lost that he refers to in this excerpt are his roots, his values, and his real identity. While he is upset enough about what he has already lost, he is also aware that there are things he will continue to lose from now on. He knows that he will lose Emma, the only reason he continues to live in England. Breaking up with Emma may also ruin his relationship with Amelia, and he will have lost her partially. While he cannot stand his own life anyway, England will be intolerable for him if his family falls apart. In short, the more he loses, the more his in-betweenness will increase and, implicitly, the things that he cries for fear of losing are a sign that his in-betweenness will deteriorate.

Representation of Hybrid Identities

As mentioned before hybridity "does not consist of a stalemate between two warring cultures but is rather a productive, exciting, positive force in a shrinking world that is itself becoming more and more culturally hybrid" (Mohammed, Sadeq, 2016, p. 254). And the fact that they were raised by having been exposed to two cultures on some occasions or acquired two cultures at the same time. Now that the main character of Admiring Silence (1996) presents hybridity so much, this study aims to associate some quotes from the book regarding hybridity. First of all, in colonized countries education is given by British authorities and Abdulrazak Gurnah is among the students at these schools, as it is mentioned earlier. The main character of Admiring Silence (1996), in which Gurnah is largely inspired by himself, has also received a colonialist education since his childhood. This means that the character has become the subject of hybridity as of his early childhood. He states that the way of education has been interfered with in order to raise children in their own way.

It was then only three or four years before Independence, but the majority of the secondary-school teachers in the country were European, mostly British, but a handful were from the settler colonies in the south. They had the necessary expertise, it was thought, and the lads and ladies had to have jobs, or what was the point of having an Empire? Their salaries were levied on the colony, of course. (p. 55)

The quotation expresses that they see themselves as more qualified, they think that the people who give the education should be the educators they have trained. That is exactly what is required to be the Empire. The benefit of the empire had touched him too, and he too had been trained in colonial education. From the following statement, it can be thought that he was deliberately trained to be a hybrid: "I've received enough colonial education to be sporting on such matters" (p. 13). Apart from his education, he explains that they also interfered entirely with the way of government. It is clear that they are applying their own laws and rules under the guise of civilizing the people of the region. They claimed themselves in charge of ruling countries like Zanzibar. But what they actually did was subdue people with impositions. They had accepted this job as their mission. They made excuses for their actions. They even gave a new name to colonization themselves: "White Man's Burden". This nickname refers to the task of taking over the management of whites who consider themselves more advanced than blacks. This is a difficult task for them to fulfil, but it still needs to be done, which is why they named it a 'burden'. Gurnah also made use of this expression. In the following quote, he speaks clearly of the white man's burden but explains it with its true intentions and what it actually results in.

> But that was what they were there for, what they had put themselves there for: to make laws and issue decrees which would be seen to be obeyed by everyone – on pain of some barbarism or another – while they, the lawmakers and the bullshitters, squatted over everyone's faces and issued their wastes on them. (p. 37)

Colonist powers want to convince people that they have no intention of invading the lands they colonized. Moreover, "Often the colonizers justified their cruel treatment of the colonized by invoking European religious beliefs" (p. 200). They regarded African people as heathens and considered it a sacred practice to control and even subjugate them. With this point of view, the people except for whites become inferior and lesser important to them (Bressler, 2011). Therefore, if a name is to be given, it should not be an invasion or an occupation but rather a social, cultural, and political duty. They did not have an invalid reason to be there, it was their wish to make constructive and regulatory laws. But this attitude, which they tried to present as harmless, eventually ruined the balance of power. It has become a wheel that moves with the pure obedience and fear of the people. As a result, what is clearly visible are people who have no value of their own due to obedience. Yet, colonialists only focus on the way of living which can be claimed to be as a sign of civilization that they infuse into their lifestyle. They have a tendency to brag their infusions on natives. In fact, the realization of the interaction of cultural values within the pressure enforced by the dominant culture to a rather weaker one is a characteristic of hybridity (Ayar, 2021). Dominant culture does not hesitate to get credit for the civilization that they supplied. Even the main character's wife brags constantly highlighting their superior. "If it wasn't for us, you'd have been marrying your third wife by now, a seventeen-year-old kid who should have been thinking of her homework instead of the tired penis that was coming to ruin her life,' she said. 'That's what you would've been up to by now. Admit it" (p. 18). They hardly focus on the complaints that they have caused indeed, as might be concluded from the quote. To them, the mere emphasis should be on the civilization that they have brought within themselves. Native people did not have the right to complain much while they owed so much to their colonizers. Gurnah also offered the opportunity to look from the perspective of the victims of this yoke. He claimed that the invasions that started silently were gradually noticed by the natives and then turned into a desperate acceptance. After this acceptance, they developed a national consciousness that they did not have before, and they developed speaking styles belonging to this consciousness. "So when the time came to begin thinking of ourselves in the future, we persuaded ourselves that the objects of this abuse had not noticed what had happened to them, or had forgiven and would now like to embrace a new rhetoric of unity and nationalism" (p. 57). Although it took time for them to realize that they were the subject of an exculpated invasion, awareness has resulted in creating a consciousness of unity in such nations. It is the result of colonized nations sooner or later that they realize that they cannot have a bright future without nationalist ideas. Such nationalist ideas and unity seem to them as the only step toward liberation. For them, it is both a motivational tool and a kind of power source that enables them to seek the power they need within themselves.

They wanted to glory in a grievance, in promises of vengeance, in their past oppression, in their present poverty, and in the nobility of their darker skins. To the nationalist rhetoric of their opponents, they proclaimed a satirical reprise of their despised Africanness, mocked the nationalists for their newfound conscience, and promised them an accounting in the very near future. All of which came to pass with incredible promptness. (pp. 57-8)

Additionally, coming into society as a refugee and integrating is difficult as expected; it takes a lot of effort and struggle. Therefore, being known as a successful person can only be achieved by fully hybridizing. During the conversation with Amur Malik who tries to persuade him to stay in Zanzibar and offers him a significant job, it has been stated by Amur Malik that he has struggled much to achieve the situation where he is in right now. The next quote is going to give the idea that he has succeeded in creating a new identity in which there is a combination of two different cultures' morals and values.

> You've struggled all these years to make a successful life for yourself, and now you have a good position, with all the comforts and conveniences you desire. Don't think I don't know how difficult it must have been to achieve that. Some people here think that living in those places is just a matter of turning up at the bank once a month to collect your salary, and the rest of the time you can put your feet up in front of the TV. (p. 126)

He states that it takes hard work and dedication to live a life like an Englishman. Therefore, the unnamed character sacrificed a lot for what any Englishman could have easily achieved yet he has finally managed to become a hybrid. Contrary to what people in Zanzibar imagine, not going to the bank to withdraw money at the end of the month after watching TV at home all month. Amur Malik says that life in England is earned by hard work and that the character is like them and lives on. Also, hybrid people who share common problems with the unnamed character strive to please other people. Mohammed and Sadeq state the same thing by saying "they had to change quickly, to adapt in order to survive in the world that shifting and changing dramatically around them. Nonetheless, they didn't become English, and still, they were rejected, and worse yet, considered mimics by the English" (2016, p. 257). The thought of reaching the idealized lifestyle, which is always praised and educated, always takes place in their minds.

Even being integrated may not satisfy them. Turning into people whose mission is to mould them into a shape becomes a dream. "I imagined that I looked as they did, and talked as they did, and had lived the same life that they had lived and that I had always been like this and would go on unhindered way beyond the sunset" (p. 53). Their differences are an undeniable obstacle for such minorities therefore they desire to blend into society and not reveal that they are different from others. Thus, "many of these individuals tried to imitate their colonizers, as much as possible, in dress, speech, behavior, and lifestyle." (Tyson, 2006, p. 421). The next quote will reflect how an immigrant adopts hybridity. "I told him I liked green bananas and smoked monkeys for breakfast. He seemed taken aback by this for a moment, no doubt surprised that I had no problems with supplies, but then he nodded in recognition" (p. 11). As might be understood, he consumes expensive things and has refined tastes rather than expected tastes, which can prove that he creates a different identity with the aid of these two cultures. Zohdi called the different identities created in the harmony of different cultures "merged identity" by saying "these people are all along their lives vacillating between two cultures which brings them merged identity" (2018, p. 150). All in all, it has been concluded that the unnamed character developed an identity out of vacillation.

Conclusion

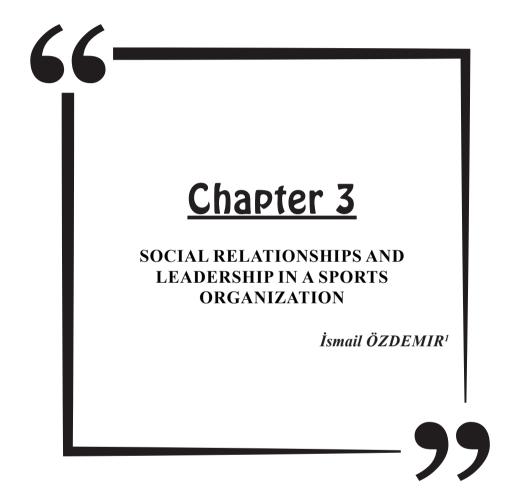
Gurnah covers the same group who had been forced to have been displaced in Admiring Silence like his other works; his characters are comprised of immigrants and asylum seekers versus the civilized stereotypes of the West. His focal point has always been the identity issue arising from alienation, discrimination, inhospitality, and non-adaptation to Western culture. In this study, the identity issues after displacement were dealt with in the light of postcolonial literature and it has been concluded that these identity issues derived from the reasons mentioned above lead to huge devastation for immigrants and asylum seekers as an identity crisis in the end. Quotes taken from the book have also proved that characters in Admiring Silence (1996) suffer from Bhabha's various identity theories such as a sense of belonging, in-betweenness, and hybridity. While his own culture has faded away, a culture that never reflects his own culture and in which he is placed in the category of second-class people has also enhanced his sense of not belonging anywhere. Gradually, unhomeliness leads him to such social relationships including conflicts with even his family. This situation has revealed the fact that a lack of sense of belonging might cause serious crises. In addition to losing the sense of belonging, it has been found that the inability of such characters to adopt both cultures causes them to lose their identity by creating a gap between identities. Another reason which causes identity loss is the unbalanced power that has been discussed in this study. His books highly point out the superiority and inferiority between the West and the East and "how hospitality and power relations and hierarchies between these groups of people lead to identity formation and possible (de)valorization and (de)construction of the dominant discourses" (Soleymanzadeh, 2021, p. 13). Additionally, the unnamed character's silence is identified with the dominion of the West; the character represents the oppression of the East by keeping his silence. Therefore, "Understanding the characters in the novels requires silencing of the Western stereotypes paradoxically through focusing on their silence which undermines the authority of the discourse of the West" (Arslan, 2014, p. 4). In relation to hybridity, it has been found that Admiring Silence's unnamed character creates a mingled identity out of a combination of two entirely different cultures. This fact has strengthened the idea that hybridity provides a way to conglutinate different ways of living in one human being.

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Introduction

Organizational behavior is significant in a sports organization competing in a team sport branch. Organizational psychology of the members taking place in such organizations should be monitored carefully to be able to detect their contribution to the team performance and task performance.

In a team, competing in a team sport, task performance of each athlete is important. Because they have different skills to contribute the team and they have a determined task. To be able to focus on their task, they must have a good coordination with their team-mates. The coaches and managers need to observe the relationships between the team members closely. But they still need to determine a solid strategy to be able to increase their performance.

The most significant construct in a tem-sport is interpersonal strain. This provides the athletes to keep themselves isolated from any kind of irritations. One must admit that not only the rival team members are a threat to successful athletes, but also the jelaous team-mates can also be a threat to the athletes with high performance. Competition between the members of the same team is very common and it is not surprising to see them trying to pull each other down whenever they find a chance. Thus, emotional control is necessary for such athletes and such a control describes interpersonal strain.

The coaches should monitor relationship conflicts in a sports team. Conflicts take place anywhere humans exist. The most important thing is being able to control the conflicts and being able to end them up in a controlled manner.

Conflicts cause emotional exhaustion. The team sports already cause a certain extent of stress. If this stress is integrated with the relationship conflicts, it is quite easy to see athletes confronting with emotional exhaustion. The athletes with interpersonal stratin will have an advantage. But the greatest advantage would be provided by the servant leaders.

Servant leadership of the coaches has been a great concern for the scholars during the last decade. The researches have shown that the athletes can be aggressive, they may not tend to accept the coaches and their authority. Hence, the best way for a coach is being a servant leader and having a place in the mind of the athletes.

The most competitive athletes are the greedy ones. If the coach is not accepted this greed might be a barrier. It is quite possible to see a team attempting to fail just due to the reaction to their coaches. This chapter will discuss the methods of increasing the success of a team with servant leadership.

Interpersonal Strain At Work

In a sport team, the relationships between the athletes are important for success. Together with these relationships, the relationships between the athletes and the coaches affect the performance and success of a sports team. The athletes can be talented, but without enough motivation provided by the other team members or the coaches, an athlete may not use all his potential to win or contribute to the performance of the sports team.

The relationships can be improved in a sports team. But an individual may prefer to cancel almost all his relationships with the other people in the work environment of him. This is called interpersonal strain at work. The effects of such behavior can affect the task performance negavitely (Shaukat, Yousaf, & Sanders, 2017).

Interpersonal strain at work can be described as "detachment from all of the interpersonal relationships at work". The reason of this behavior can be the fear of social exclusion or alienation. Some individuals feel better if they can show their borders and distance keeping attitudes before any possible social exclusion and alienation. Because they accept this situation to be a result of their attitudes, not as a result of their personality (Consiglio, 2014).

The reasons of interpersonal strain at work are various. Because any discomfort resulting from social and emotional pressures can trigger interpersonal strain at work. Interpersonal strain does not include incivility nor bullying, but it may include attitude of ignoring other employees (Kristensen et al., 2005).

The Results Of Interpersonal Strain

Some jobs focus on personal performance instead of group performance and collaboration is not necessary. Interpersonal strain at work can increase the performance of the organization at such jobs, but this construct can affect the performance negatively in other organizations (Rakovec-Felser,2011). In other words, task performance will be affected differently in different organizations. That is why, if the relationship between interpersonal strain at work and task performance will be surveyed, the research context should be described clearly. This study aims to survey this relationship in sports teams.

The relationships between the team members can contribute to the performance of the team. But if the coaches don't intervene these relationships, some risks will be taken. Because these relationships can have various different forms due to different personality of the athletes. Intepersonal strain at work includes less risk. It is a kind of standardization of the relationships.

Relationship Conflict, Emotional Exhaustion, And Task Performance

In sport organizations, the relationships between the team members is important for success. The conflicts can affect the success of the sport organizations negatively. The factors affecting the success of such organizations are vital for the coaches and managers of these organizations.

In a team-sport, the conflicts damage the harmony between the teammembers. It is necessary for a team to be moving like a complete body to win. If the team-members can't get along, they can't increase the team of the power by fulfilling the lacking characteristics of the team. Only the team members understanding the weaknesses of the other team members and accepting them can contribute to the performance of the team. Unfortunately, conflicts mostly put emphasize on the weaknesses of the team members and cause a decline on the confidence of the athletes. That is why realtionship conflicts affect task performances negatively in a teamsport organization such as sports teams.

Conflict is a concept that exists together with the human. Therefore the sport organizations also cannot avoid the existence of conflicts. The organizations and the managers cannot pretend like there is no conflict around them. The only way to decrease the harmful effects of conflict is recognizing the structure of the conflicts. The structure of the conflicts can be different in different organizations. Thus sport organizations should understand the unique characteristics of the conflicts between the athletes. But it is not possible to understand them without determining the relationship between conflicts and the performance.

The effects of conflicts should be determined to be able to keep the negative results of conflicts under control. Interpersonal conflicts can be classified as relationship conflict and task conflict (Choi, 2010). Task conflict can occur in various different ways, it is unpredictable as it is dependent to the structure of the task, time, place, and various other factors. But relationship conflict is affected by the human relationships, and it can cause more negative consequences (De Wit et al., 2012).

Interpersonal incompatibilities can cause relationship conflicts. Personalities, norms, and values of the employees can be different, and these differences can be the reasons of relationship conflicts (Jehn, & Bandersky, 2003). Anxiety and animosity can be the results of relationship conflicts (Jehn, 1995). Relationship conflict includes negative interpersonal experiences increasing interpersonal tension (Kacmar et al., 2012).

Relationship conflict is negatively related to task performance (Ismail et al., 2012). Especially the tasks requiring collaboration of the employees are affected by the relationship conflicts. The enterprises failing to overcome this limitation will confront reduced task performances. But this kind of relationships are expected to be impacted by the structure of the organization. Task performances are parts of team performance.

Emotional exhaustion is related to relationship conflict and task performance. It is described as "feelings of being overextended and depleted of one's emotional and physical resources" (Maslach and Leiter, 2008, p. 498). Emotionally exhausted individuals hardly motivate themselves to perform their duties. Moreover, they are reluctant to focus on their duties.

Among the other factors excluding relational conflict, emotional exhaustion is one of the strongest antecedents of task performance in a sports team. Emotional echaustion can also be affected by relationship conflict as the relationships between the team members and conflicts affect the emotions of the team members negatively.

Job Satisfaction

Job satisfaction is a concept which is a widely studied subject of organisational behaviour researches (Cogaltay, Yalcin ve Karadag, 2016). Job satisfaction is a negative or positive state of an individual which results from his job. Spector (1997, 2008) describes job satisfaction as 'the extent to which people like their jobs'.

Job satisfaction of the athletes affects their performance and their decision tos tay in the team. Job satisfaction is affected by the cognitive differences of different individuals, and by the emotional differences of the same individuals. Berry (1987) describes job satisfaction as a personal reaction. The feeling of "justice" also affects the job satisfaction (Dundar and Tabancali, 2012; Nojani, Arjmandnia, Afrooz and Rajabi, 2012). Adams and Freedman (1976) expressed that individuals can be unsatisfied when their efforts are not fairly evaluated comparing to someone who is performing a similar job. In this manner, he related job satisfaction to equity theory.

Babin and Boles (1998) claimed that gender can also affect job satisfaction, and they developed their own job satisfaction scale. Brayfield and Rothe (1951) also developed a job satisfaction scale. There are also multi-dimensional job satisfaction questionnaires. For example, Spector (1985) improved "Job Satisfaction Survey" to measure job satisfaction. This scale has 9 facets and 36 questions. Another commonly used questionnaire to measure job satisfaction is the Minnesota Satisfaction Questionnaire (Weiss, Dawis, England and Lofquist, 1967). This questionnaire has two

sub-scales: 'intrinsic' and 'extrinsic' satisfaction. The overall score is derived from the scores of these two sub-scales.

Turnover Intention

Turnover can be threat to the success of a sports-team. The leaving members mean that the effort of the other team-members and the coaches to teach something to the leaving athletes is going out of the window. This will affect the motivation of each member taking place in the same team.

Turnover also causes a fluctuation on the productivity of the organization. These fluctuations are obvious especially at labor-intense organizations. But this is not the only result of turnover. There are evidences about some other costs related to turnover (Deery and Iverson, 1996). Loss of efficiency and inconsistency are some other results of turnover.

Turnover intention is an sign which should be accepted as a warning by the managers or the employers (Jung, Namkung and Yoon, 2010). This warning sign shows that the number of the employees may decrease in that organization. The managers do not prefer to lose the employees contributing to the company. To avoid this loss, they follow the turnover intention and they prepare strategies to keep the employees. To be able to prepare a successful strategy, they need to know the factors affecting turnover intention. Job satisfaction is the main factor which affects turnover intention.

Turnover measurements can provide historical data. But turnover intention measurements can provide predictions, which will be useful for decision-making. Therefore it is crucial for the decision-makers. Mobley, Horner and Hollingsworth (1978) measured turnover intention and his scale is still being used in the researches of today. Another common technique to assess turnover intention, is using 3 questions of Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins and Klesh, 1979).

The Relationship Between Job Satisfaction and Turnover Intention

Job satisfaction can be described as the positive development on the emotional state of the employees, which results from their job. Job satisfaction is a measurable concept. The differences between the levels of job satisfaction and the variables affecting these differences became a popular research interest for the researchers.

Job satisfaction is triggered by the financial and non-financial contributions of the job to the employee, and it has a positive impact on the emotions of the employee. The researches suggest that improvement of job satisfaction contribute to a better life with higher quality (Ioannou et al, 2015; Mirzaii, Riazi, Vares, and Alamgard, 2014; Cimete, Gencalp and

Keskin, 2003). Job satisfaction does not affect only the life of the employee and social life in a community, but also the business of the employers (Lim, 2008). The subjects related to the job will not be attractive for the employees with low job satisfaction. After a while the contribution of these employees to their workplace will decrease and they will tend to neglect their job.

The business owners started to accept job satisfaction as a tool to increase the productivity after 1900s. They supported the researchers and that is how the Hawthorne experiments started. Hawthorne Experiments (1927-1932) showed the importance of job satisfaction to the business owners and researchers (Onday, 2016). Job satisfaction of the employees is accepted as a contributing factor for the organizations.

The job satisfaction is evaluated on two different edges: satisfaction and dissatisfaction. The classification of satisfaction and dissatisfaction was prevalent at 1950s (Weitz, 1952; Herzberg, Mausner and Synderman, 1959) and the validity of this classification is still accepted today. Spillane (1973) used a different classification by using the terms of intrinsic and extrinsic job satisfaction and expressed the relationship between these terms and turnover.

Turnover rates started to be a concern of the companies at the beginning of 1900s. The researchers described this problem (Douglas, 1918; Eberle, 1919), and they tried to measure turnover rates (Douglas, 1920). Turnover became a subject of labour economics. Some companies started to follow turnover rates more closely. But the Great Depression of 1929 and the high unemployment rates caused by this crisis, moved the attentions away from the term of turnover. Because finding a job was difficult during that period, and deciding to quit a job was meaning a big risk for the employees. Besides the companies had a new concern: surviving.

Before World War II, the huge companies had to keep an eye on their turnover rates. Because Great Depression changed the balance of the world, and they had new locations for their operations. At some of these new locations, it was not easy to replace the quitting employees. If the companies are providing specific training courses to their employees, the experienced employees are the investment of the companies, and turnover means loss of investments. Sometimes loss of experienced employees mean interruption of operations for a department.

During and after World War II, migration increased all around the world. This situation could mean inconsistency for the companies, especially fort he labor-intensive companies operating in some certain regions where labor is scarce. Turnover rates became a prior concern once again. The studies about the turnover rates increased. Cook (1951) described the term of turnover together with job satisfaction. Silcock (1955) attempted to measure turnover, and also he was one of the first researchers who related turnover to job satisfaction. The researcher who turned this concept into turnover intention, Mobley (1977), analysed the relationship between job satisfaction and turnover. But turnover was not observed as an "intention" on those days.

Mobley, Horner and Hollingsworth (1978) attempted to make a model in order to measure turnover intention of the hospital employees. With this study, the importance of turnover intention is understood and the term of "turnover intention" started to take the place of "turnover". Because the employers perceived that it is possible to get involved with new strategies in order to decrease turnover intention, before confronting the negative results of high turnover rates.

Every turnover intention does not end up with quitting the job, instead the employees may keep on working with a neglectful or a cynic attitude, which can be more harmful for the enterprise. Sometimes the employees want to quit, but they cannot find a job to replace their own. This will increase the turnover intention. With the increasing turnover intention, the employees tend to accept jobs with worse conditions, and these employees are expected to quit whenever they find a job (Reed, Kratchman and Strawser, 1994).

Mobley (1977) explained the processes which shape the turnover intention. First, the employees evaluate their own jobs. Second they decide whether they feel satisfaction or dissatisfaction. According to their decision their turnover intention rises or declines. In other words, job dissatisfaction increases turnover rates in time. Akerlof, Rose and Yellen (1988) suggested that job satisfaction has a strong relationship with turnover.

Low job satisfaction levels are expected to develop turnover intention. Therefore the studies related job satisfaction to turnover intention (Freeman, 1978; Clegg, 1983). The researches revealed that there is a negative correlation between job satisfaction and turnover intention (Hellman, 1997; Lambert, Hogan, Barton and Lubbock, 2001).

The number of studies on job satisfaction are still increasing, it is a very popular research subject. Job satisfaction is a prevalent research interest among Turkish researchers. Some Turkish researchers make a review of job satisfaction using the method of meta-analysis (Cogaltay, Yalçın and Karadag, 2016; Cogaltay, 2016). Besides the studies on the relationship between job satisfaction and turnover intention had an increasing number in recent years in Turkey.

There are various pitfalls about the relationship between job satisfaction and turnover intention:

First, the effect of industry is being discussed. In some certain industries, job satisfaction influences turnover intention strongly. For example, in media industry, the organizations with high turnover are the ones with high job dissatisfaction (Pollard, 1995; Ryan, 2009). The type of the industry can be a factor that affects the relationship between job satisfaction and turnover intention.

Gungor (2018) found significant difference between the job satisfaction perception of the employees of public sector and the private sector in Turkey. The distinction of public and private sector can be another factor affecting the impact of job satisfaction on turnover intention. Because private organizations, which hosted the researches, are profit organizations, and the public organizations, which hosted the researches, are non-profit organizations.

Second, the effect of the measurement tool is subject for discussion. Some studies used a uni-dimensional scale and some of them used a multidimensional scale to measure job satisfaction. The number of the job satisfaction scales' questions varies from 4 to 36. This difference can affect the job satisfaction measurements. But still there is no study providing significant evidence regarding the difference caused by the measurement tools including uni-dimension or multi-dimension.

The results of some meta-analysis studies showed that a decline on the job satisfaction will end up with a rise on turnover intention, and vice versa. All of the studies found a negative correlation between job satisfaction and turnover intention.

The results of the moderator analysis of some of these meta-analysis studies showed that the employees working in different industries perceive different levels of relationship between job satisfaction and turnover intention significantly. The working conditions changing from an industry to the other, such as communication between the employees, affect the perceptions of the employees. When the communication between the employees is higher, the job dissatisfaction of the employees will be reflected to the other employees, and it may turn into turnover intention easily.

Servant Leadership

Servant leadership is one of the popular research topics today. Organizations targeting the long-term commitment of their employees are meticulous in learning and practicing servant leadership. We are witnessing rapid change in many for-profit and non-profit businesses, and in this process, labor-intensive businesses have had to stretch their leadership understanding. Because while the need for qualified employees is increasing, the number of employees is not enough to meet it.

We often see organizations moving away from their more traditional autocratic and hierarchical models towards leadership and servant leadership as a way of relating to others. Businesses that cannot keep up with this change may have difficulty in surviving. Servant leadership seeks to involve others in decision-making and is strongly based on ethical principles. Servant leadership develops care and caring behavior for employees and enhances the growth and empowerment of workers while improving care and attention. The main purpose is to develop processes that are expected to be in the interests of workers by increasing the quality of organizational life.

The words servant and leader were often thought of as opposites, and were rarely used even in the same sentence. Often, leaders were those who were served, and vice versa, that person's leadership ability was questioned. However, the process changed over time and different returns were expected from the leaders.

Characteristics of Servant Leaders

The various characteristics that are central to the development of servant leaders should be considered. Servant leaders usually come to the fore with these characteristics. For example, we should mention that such leaders are active listeners. Leaders have traditionally been valued for their communication and decision-making skills. This is how it came to the fore. While these are also important skills for the servant leader, they are not sufficient on their own. When reinforced by a deep commitment to listening attentively to others, they enable more contributing processes to be demonstrated. Servant leaders seek to determine the will of a group and help clarify that will. By playing an active role in the listening process, he tries to dominate the general way of thinking by giving importance to what is said and what is not said. When combined with listening, reflection, and detailed review, it will become crucial to development.

Empathy is possible after an active listening process. The servant leader seeks to understand and empathize with others. It is more accepted because it gives people what they need. The servant leaders may also provide a certain kind of isolation to the athletes. This isolation may both keep the athletes performing solely and as a team. This is the biggest advantage of the coaches using servant leadership. Because they trigger the will to win.

The Effect of Servant Leadership on Interpersonal Strain

Interpersonal strain increases when the confidence of the athletes increase. They feel like they are better than the others when they are criticised. The servant leaders also try to empower their subordinates. But they are different than transformational leaders. They also provide emotional connections with the others. These emotional connections support the feeling of being special.

The athletes feeling to be unique strive to win more than the other athletes. Because they believe that they are different than the others. They also feel like they make another person feeling great and it becomes so important for them. They feel superior than the others due to this connection. The reason for this connection might be determined by the coach clearly or the coach might be using heuristics to determine the right moves to trigger such a connection. This is a capability of the coaches and it is known as servant leadership as it serves the emotions of the individual more than anything else.

The servant leaders may have an influence on all the team members. They can keep them separate and link them to each other with invisible ties. Such coaches can create a great team from average players if they can create such connection between the team members. These team members will take risk to contribute to their team and their task performance will be increased. With the increasing performance of each task, the total performance will reach to a higher level and the succes of the team will be increasing significantly compared to the past performance of the team.

Result

Servant leaders can prevent relationship conflicts in a team. They reach the emotions of the team members and they harmonize the feelings and expectations of the team members. They can also decrease emotional exhaustion by helping the athletes to get rid of stress. Servant leaders can anticipate the thoughts of the others and they can change them. They can do the same to the thoughts acting as a stressor. Therefore, they can decrease the stress levels of the individuals and prevent long-lasting stress.

Servant leadership is not effective in every organization. Because a usual organization chooses members who can be a calm team member. But in team sports, competitive and aggressive athletes are more successful and it is difficult to get them as a team member. The only way is reaching their inner world and understanding their intrinsic motivational structure by using servant leadership.

Servant leadership of the coaches can increase the interpersonal strain of the athletes in a team. Thus, this type of leadership can bring success in sports organizations. A team is stronger with all the tasks accomplished successfully. If the players cannot pass the ball perfectly, a striker cannot score. If the team-mates cannot make a clear defense, even the most skilled athletes cannot score. If the defense is weak, the goal-keeper cannot contribute to the team.

Consequently, servant leadership is a emotional tie that can increase the motivation of the athletes. The athletes can show a great effort to win. Sometimes their only rival is themselves and they only need a motivator. A servant leadership can always be such a motivator.

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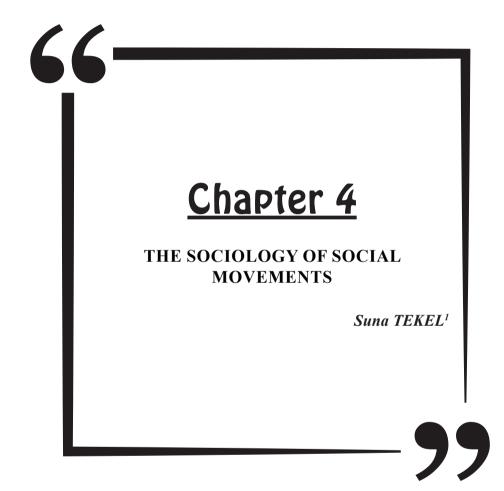
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1.Introduction

The term social movements refers to the organized action of a significant number of people to change or oppose the change of one or more of the main features of society. The term social movements was first used in the eighteenth century by the French sociologist Saint Simon to describe the protest movements that emerged in his own country and gradually in other countries.

Today, it is used to describe groups or organizations outside the main body of the political system. In the last quarter of the twentieth century, these movements, which are now also defined as New Social Movements, have become increasingly important sources of political change. Sociologists generally examine the origins of these movements, the sources of the elements that make up the base of the movement, their organizational dynamics and their effects on society.

Social movements need to be studied separately from collective behavior. This is because social movements serve a purpose and are organized (Marshall 1999:746).

Since sociology is the study of both how societies function and how they change, social movements provide a rich foundation for sociology's main objectives. Actors in social movements envision and struggle for a better world. The workings of a social movement provide a vision of how society and the state function and how society is changing (Kretschmer 2006).

In terms of political sociology, we can consider social movements in the context of inter-institutional relations; in this context, society is considered in four groups: 1. social movements 2. administrative institutions, such as parliament, courts, top administrations, government offices 3. political interest organizations, such as political parties and interest groups 4. other social institutions, such as mass communication, education, economy, welfare and religion. In democratic pluralistic societies, these four sectors form an interactive system of inter-institutional agreement, conflict and change.

As a result, social movements are intertwined with an inter-institutional space that is determined both by the main structures with specific opposing grievances and by other institutions with which the main structures interact. Movement outcomes emerge from a multidimensional organizational bargaining that involves competing with some groups, cooperating with others, aligning with others, and even open anti-systemic action (Caig 2010:356-357).

Organizations, resident groups, sympathizers, outsiders, dissidents and bystanders can participate in social movements for overlapping goals, both inside and outside government. As organizers work to prepare demands, shape slogans and arguments, and develop a strategy, while the government on the one hand and opponents on the other criticize, a social movement does not even have full control over its own parties. Social movements often have a blurred structure, as most movements seek to mobilize new supporters and organize new actions.

An important problem for activists is how to draw the boundaries of alliances within the movement. Because more supporters means more diversity and less and less control. Conversely, a narrower base of participants and more limited alliances provide clearer strategies for action but ultimately less impact(.Kretschmer 2006).

Much social movement activity is about the promotion of ideas. Movement participants analyze and publish analyses of social problems and potential solutions. Activists also take actions to draw attention to their ideas.

They circulate petitions, participate in referendum or election campaigns, lobby elected officials and vote where and when they can. They try to be visible and gain support by knocking on doors or taking part in events and organizations for those they think will support them.

In addition to mass demonstrations, activists sometimes hold vigils, fast, strike, organize boycotts, and set up semi-permanent camps to support their cause. Sometimes they choose to dress up in various costumes to attract the attention of the mass media.

Sometimes activists break the law to spread their ideas. But subversive and radical tactics such as civil disobedience or violence can be a doubleedged sword. On the one hand, it can provide visibility, but on the other hand, it can also cause a potential backlash.

Activists begin to see themselves as different from outsiders. They interpret their experiences in political terms and politicize their actions both in the context of the movement and in everyday life. The collective identities constructed at the height of the movement persist even after the protests have ended.

Social movements are continuous massive movements that promote or prevent social change and mostly with permanent effects. Social movements were observed rarely in pre-industrial societies that were firmly restricted by traditions, however in industrial and post-industrial societies, they are observed quite frequently due to the existence of several subcultures and countercultures in these societies. Mass movements, which only share a number of the characteristics of a social movement, could be defined as so-called fan base and religious community movements (Deniz 2015:1): Mass movements stand somewhere between masses and the real social movements. For example, massive immigration. Here, although there is a perception of "us," generally the behavior of the participants is individual. Fan base is a mass movement that coalesces with admiration and interest for a public personality. Admired individual is the object of interaction among participants and could motivate the participants for a social change program.

Religious communities share the continuity of a social movement, but demands for change are limited to participating individuals. In other words, the movement could have different demands from the participants when compared to social standards, but generally do not demand such a change from the society at large. If they became a tool of a general demand of change in the society, then they could become a real social movement.

Social movements first emerged in the 18th Century and started to internationalize in the 19th Century. Social movements could be grouped under four heading based on the questions "who changed?" and "what was the scope of the change?" (Macionis 2012:609): Alternative social movements threaten the status quo at a minimum level and demand change only in a small portion of the society. Their objective is to assist the members of a specific group to improve their lives. Redemptive social movements also aim a specific community, but they demand radical change. Reformative social movements request change in a limited scope but for all. Certain are progressive, while others are reactive, that is, they aim to preserve status quo or to revive old social models. Revolutionary social movements are the most radical movements and demand a radical change in the whole society. In accordance with their sometimes even utopic goals, they consider existing social institutions a failure and propose new alternatives.

Main characteristics of social movements could be listed as follows: From the 18th Century on, social movements were conducted with interactive campaigns, not as demonstrations, they have identity based demands within the context of a definitive program, containing reputation factors, thus, the participant profile differs based on the demands, the phenomenon of democratization motivates the formation of social movements, usually the sovereignty of the people is demanded, and these movements could disappear or transform within time (Deniz 2015: 23-24).

Social Movement Theories

Academic studies that analyzed emergence and development of social movements were focused on political opportunities and limitations

that enable the occurrence of social movements, official or unofficial organization types that the participants utilize, and framing processes related to the massive interpretation of the movement. Basic properties of the theories proposed in this context are as follows:

Rational choice theory emerged in the 1960's and was under the influence of neoclassical economics. Its focus was benefit oriented individuals with values, and act intentionally (Ritzer 2008: 277). Individuals are guided by their personal interests and act to increase their benefits and to decrease costs. Rational choice theory was initially used by Mancur Olson to explain social movements. Groups that include individuals with common interests protect their group-interests, while the individuals protect their own. Individuals would participate in group behavior only if common interests and goals of the group conform with her or his own personal interests. Otherwise, they would not act in cohesion when there is no obligation or pressure. Thus, Oberschall investigated why certain individuals participated in social movements, while others did not and suggested that socially connected individuals participated in social movements more frequently in his research.

William Kornhauser's mass society theory (1959) on the other hand, argues that socially isolated individuals join social movements to gain belonging or significance in society (Macionis 2012: 611). According to this theory, social movements are observed in mass societies dominated by impersonal communications among individuals. According to Kornhauser, individuals with weak social bonds tend to join social movements. In other words, individuals who are integrated with other individuals in social life are unlikely to participate in social movements. Kornhauser considered social movements to be rarely democratic since the individuals that tend to participate in social movements are prone to manipulation by group leaders.

Relative deprivation theory explained social movements based on individuals who consider themselves deprived from certain things. It was argued that individuals without sufficient income, job security, basic political rights, or who live under conditions that are incompatible with human dignity could organize or join social movements. Deprivation is a relative concept based on perceived disadvantages. Because individuals tend to define their circumstances as good or bad based on the categories of other individuals. However, the fact that although most people experience undesired events in their lives, not all participate in social movements was not explained by this theory.

Resource mobilization theory emerged in the 1970's and considered social movements as an extension of politics and examines them based on conflict of interests. It argues, however, that social movements could not succeed without significant resources such as money, manpower, office and communication equipment, access to mass communication tools and necessity to be supported by a positive popular image. This theory perceives social movements as a political challenge conducted by normal, rational, institutional and victimized groups.

Neil Smelser's structural strain theory (1962) proposed six factors that motivated social movements: individuals start to think they have serious problems with the society (structural cause), individuals, whose expectations are not fulfilled by the society, start to experience relative deprivation (structural strain), in this case the problem and possible solutions should be well defined, otherwise discontent would most probably be expressed through unorganized riots (definition and expansion); a certain condition that triggers discontent occurs (precipitation), acting to arrive at a solution, e.g. distributing brochures, organizing rallies, etc. (action mobilization), and the levels of response by politicians and security forces (lack of control).

Culture theory suggests that social movements could derive from cultural symbols and might not aim to obtain physical resources or political power. Social movements could shape around a feeling of injustice or a common ideology.

Political economy theory argued that social movements occurred in capitalist societies. Because capitalist economy could not provide for the vast majority of the people. Conditions such as unemployment and poverty could be observed despite good economic performance of a country.

New social movements theory claims that old social movements led by labor organizations were economy oriented, however, new social movements aim to shape social and physical environment. A basic feature of today's social movements is the existence of international connections. In other words, the impact of globalization is observed in social movements as well.

Since old social movements were economy oriented, they generally received the support of working classes. However, new social movements are supported by upper and middle classes. Because, wealthy individuals have the tendency of being conservative on economic issues since they have a wealth to protect, but they also tend to be liberal in social matters due to their comprehensive education. Some find this approach to new social movements a tad exaggerated. Because, feminism, for instance, focuses on economic subjects such as workplace conditions and wages today.

According to Alain Touraine, the definition of social movements should be attempted after conducting a determination of the general analysis

of life (Touraine 1999: 47-51). Touraine defines social life as a primarily self-producing and self-transforming movement. This movement, which has a wider meaning that assigned by economic factors, realizes through the conscious of individuals. Subjects define themselves as subjects and similar others with their capacity to become subjects. Thus, Touraine concludes there are at least three types of conflict that aims to transform at least one or more dimensions of social or cultural organization: he names conflict behavior that includes reconstruction, adaptation of or an attempt to defend a sick element of the social system as collective behavior and conflict that attempt to transform the sovereignty relationships on cultural resources such as struggle and production, information and ethical rules, as a factor of change as social movement.

Collective behavior should be considered as a reaction that should be understood within itself based on integration or disintegration of the social system defined with the principle of unity and solidarity. On the other hand, struggles that include a strategic social change are not reactive but initiatives that are not concluded with the construction of a system, since this is never their objective. For instance, while fighting against unfair wages among employees is an example of a collective behavior, to increase the influence of employees on decisions about work conditions is an example of a struggle. On the other hand, social movement is not a reaction to the social situation. But, it is an outcome of the struggle between social movements that fight to gain the control of social situation, cultural models and historicity.

This struggle could cause the rupture of political system or cultural reforms. Touraine argued that classical sociology is a child of English, German, American and French societies and these countries were nationally defines societies in addition to having a political, economic and cultural unity that includes social actors like an organized labor force and entrepreneurs. However, he also added that in today's world these conditions have changed, because social actors now defend their interests, not only within national boundaries, but in workspaces defined by technology and in international arena.

Differentiation of economic development with social systems promoted collective behavior and social movements in the name of social and cultural integrity of the society. It is no longer possible to sociologically understand the societies within an evolutionary framework from community to society and from mechanical solidarity to organic solidarity. Also Touraine argues that the phenomenon of social movement could not be differentiated with the class phenomenon. The classes should be perceived as actors in a struggle. Thus, social movements should me mentioned instead of classes. Claus Offe argued that political structure of western societies has been reshaped (Offe 1999: 53-79). As a result of the more visible pressure generated by public policies on citizens, they attempt to gain control on political administrators using tools that do not match the political system. Thus, starting from the seventies, it was proposed to refine the political in the name of liberalization of political administrators from the influence of citizens as a conservative project and to exclude all nonpolitical practices, issues and demands from the government agenda.

Thus, it was observed that the rules and sources of artistic production, science, technology, family, religion and labor market could be provided by the state and these fields, which were independent before, were brought under the control and assistance of the state.

According to Offe, as the function and responsibilities of the state expand, its capacity to make binding decisions is reduced. Although social movement policies oppose the content of this conservative project, they both have a point of agreement. That is the fact that the struggles in advanced industrial societies are far from the approach of resolution by etatism, political regulation and bureaucratic authorities as required.

Thus, social movements attempt to politicize institutions of the civil society in a manner not limited to bureaucratic institutions. That is, they politicize their actions in an area between the private interests and institutional government policies. The subjects they politicize are neither private nor public, but their outcomes are of interest to both public and private actors.

Offe considers ecological or environmental, human rights, feminism and peace movements as social movements. The main issues of social movements are related to the area of life, i.e. body, health, sexual identity and to the sustenance of humanity, i.e. cultural, ethnic, national heritage and identity. Social movement participants are informal, irregular, settingdependent and egalitarian. They act through campaigns, speakers, networks and volunteer help. Contrary to conventional political organization methods, there are transient and weak boundaries between the roles of the members and official leaders.

They attempt to attract the attention of the public via unusual protests and using legitimate tools. Usually they utilize negative phrases such as "end," "stop," and "never." Thus, they do not use tactics such as negotiation or consensus with other political actors, because movements do not possess the ability to negotiate. That is, they have nothing to offer in exchange for their demands.

Another feature of social movements is the fact that actors are not based on existing political and socioeconomic codes. Thus, old social movements are socioeconomic groups, which act as a group based on conflicts of income, their themes are economic growth and distribution, security and social control; their values are freedom, consumption safety and material progress; and their mode of action is through official organizations.

On the other hand, new social movements are sociocultural actors that are not a group, but gather around certain themes and act in the interest of the community; their themes are peace and protection of human and environmental rights; their values are individual autonomy against central control and identity; and their mode of action is an organization with low level vertical and horizontal differentiation and protests that are expressed in negative terms.

Albert Melluci defines modern societies as follows (Melluci 1999: 81-109): New conflicts in the society are permanent, new solidarity and movement types coexist with more conventional memberships. These solidarity networks function through a covert participation and socialization, because it opens new channels for grouping and formation of elites. One of the reasons for the complexity of modern societies is the void between representative and decision making mechanisms and the civil society.

New movements could not adapt to the existing political participation channels. Melluci defines social movement as a collective mode of action based on solidarity that contains a struggle and forcing the boundaries of the system it is in. He perceives the modern movements as a network that consists of small groups intermingled with daily life. They are interested in issues such as nuclear policies, peace and abortion.

The reason it was conceived as a network was the fact that individuals and information travel through the network, integrated with radios, bookstores and journals. Networks allow multiple memberships; shortterm and part-time participation, sparing some of their personal time and emotional solidarity are expected of the members. According to Melucci, these properties indicate a morphological change in collective behavior. According to Melluci, social movements have a bipolar model; secrecy and visibility. With secrecy, individuals directly experience new cultural models that oppose predominant social codes, in other words they experience changes in the semantics system.

When the groups become visible to oppose the political authority, visibility demonstrates that alternative cultural models are possible for the rest of the society. While secrecy nourishes the cultural environment necessary for solidarity networks and mobilization, visibility strengthens secret networks and promotes foundation of new groups and gaining new members. This type of modern social movements are not a tool, but an objective in itself.

Jean Cohen compared the two fundamental paradigms on social movements; resource mobilization and identity-oriented paradigms, and suggested that, although they produced contradicting theses, they complimented each other (Cohen 1999: 109-129). However, according to Cohen, since all social movements are based on society protecting itself against the state and they all fight for a democratic civil society, they should be explained with a different theory, which takes these issues into account.

According to Hank Johnston, Enrique Larana and Joseph R. Gusfield (1999: 131-161), social base of social movements has a tendency that goes beyond the class structure; their ideological framework contradicts with that of the Marxist ideology. These movements have a political meaning for the western societies; they represent democratization dynamics in the daily life and expansion of civilian aspects of the society against the political ones.

Social movements emphasize the identity dimension and are concerned with cultural and symbolic issues. These are not expressed through groups, but individual movements, and focus mostly on issues that reflect the personal aspects of human life (e.g. alternative medicine or anti-smoking). They utilize different mobilization models such as antiviolence and civil disobedience. Finally, they have divided, dispersed and decentralized organizational styles.

Following the discussion of social movements, the following questions could be posed: could all social movements reach their objectives? What could be the reasons behind their failure? Frederick Miller (1983) argued that there could be four reasons behind the decline of social movements: if the participants have realized their own goals, then it could be argued that the decline had followed the success. For example, the suffragette movement was dispersed after they had obtained voting rights for women, but then different objectives arose.

The second factor behind the decline of a social movement could be organizational failures due to the presence of weak leaders, participant losing interest for the cause, insufficient financial funds to maintain the movement, or the oppression of the authority. Certain individuals could lose their initial enthusiasm as the new routine sets in, or personal interest within the context of internal conflicts on the goals and strategies of the movement.

The third factor could be the disintegration or splinter of the social movement due to the temptation of movement leaders by the system's offers of money, prestige or power. Or, similar to Michel's bronze law of oligarchy, the leaders could tend to use their positions for their own interests. The fourth factor could be the dissemination of the social movement and scaring old and potential members as a result of pressures and official threats or dispersion of the movement as a result of the imprisonment of the leaders.

Revolutionary characteristic if a social movement could be a reason for an increased pressure. Another factor could be the social movement joining the mainstream of the system and becoming an accepted part of it (Macionis 2012: 618).

CONCLUSION

Modern politics has a structure, which is beyond the ruling and the ruled or the concept of political parties. Among political actors, intellectuals, capitalists, unions, non-governmental organizations, representatives of women, youth, different sexual orientations, trade associations, multinational corporations, think-thanks, etc. could be counted. Although political parties are the most significant actor that emerged in the 19th Century and were very active throughout the 20th Century, the influence of alternative pressure groups has increased as well (Çelebi 2003: 191).

Modern youth are accepted as an active actor in social movements due to their openness for innovation, active use of communication technologies and mass communication tools, their dynamism and characteristics to follow up and interact with international developments. For instance, an analysis of the movements dubbed as the Arab Spring in the Middle East would demonstrate that they were led by the youth. In the Middle East, the young population has a big share in total population, but they lack participation in decision making mechanisms and political processes (Sari 2015:103).

In this context, social media deserves a mention as well. Social media has created a communications process that enables counter-interaction of individuals. Individuals could gather in a virtual environment without the boundaries of space and time, individuals with different identities could interact on a common ground and an alternative public space could be created. This situation is effective on the formation of new social movements on a global basis.

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Chapter 5

66

PERSONNEL SELECTION CRITERIA OF AUDIT FIRMS: HOW IMPORTANT ARE THE PROFESSIONAL CODE OF ETHICS?

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Introduction

All publicly held companies in many countries are required, under relevant law to provide financial statements to the stakeholders, to present the company's financial performance for the latest accounting period. These statements are required to be prepared in accordance with International Financial Reporting Standards (IFRS). Due to relevant security and exchange acts of many countries, publicly held companies should hire an audit firm to investigate the correspondence of the companies' financial statements to the underlying economic reality of the firm's transactions and to investigate whether the IFRS were applied in the construction of the statements.

In the audit process, claims of the client (management of company) as to the existence and valuation of assets and liabilities presented on the balance sheet are investigated, as are claims as to the existence and valuation of recorded sales and expenses shown on the income statement.

A company subject to independent auditing can hire, pay, and fire the auditing firm. This raises the potentially serious problem that an auditing firm's revenues are dependent on retaining clients. This problem is at the heart of the auditor independence problem. Auditors are required by law and by the accounting profession's ethical code to remain independent of the client. Also audit team members should be independent, objective and honest. They should have some crucial characteristics such as integrity, professional competency and due care, objectivity, professional behavior, professional experience and confidentiality defined in the Code of Ethics issued in 2005 by IFAC (International Federation of Accountants) and the Code of Ethics for Independent Auditors issued by Public Oversight Board (KGK in Turkish abbreviation) in 2015 in Turkiye in order to meet true and reliable financial information need of their stakeholders.

This study examines whether influential relationship between above-mentioned criteria comply with the professional ethical standards and whether the criteria considered by audit firms in recruitment process of candidate auditor comply with the fundamentals of code of ethics for independent auditors issued in 2015 in Turkiye.

The Aim of the Study

The high profile company scandals experienced in the 1990s and beginning of 2000s indicated that independent auditing of financial statements of listed companies has a crucial role in preventing misleading financial information from being used by stakeholders in their decision making process.

Auditing requires its members to be well trained, objective and independent to realize a high quality audit process. Many fraudulent cases indicated that success of audit process, to large extent, depends on objectivity, integrity, professional competency and due care, impartiality and professional experience of members of audit team.

In this study, main objective is to assess the relative importance of the code of ethics for independent auditors such as *integrity*, *professional competency* and due care, objectivity and professional experience and *confidentiality* by matching some criteria, which are generally considered in recruitment process of candidate auditor in audit market practice such as *knowing a candidate personally, being hardworking and tidy, being able to work long office hours* and *being religious*.

In this perspective, the research questions of the present study are as follows:

1-Does influential relationship between above-mentioned criteria comply with the professional ethical standards?

2-Do the criteria considered by audit firms in recruitment process of candidate auditor comply with the fundamentals of code of ethics for independent auditors issued in 2015 in Turkiye?

Thus, the empirical results of this research can introduce useful insights for authorities setting standards and oversighting audit procedures being performed by independent auditors.

Literature

Because of the fact that the quality of an audit is the result of auditor's judgment, competence of auditor can affect the quality of an audit (Watkins, Hillison & Morecroft, 2004). Previous studies indicate that the level of judgment performance of audit can be affected by personal characteristics and audit process environment (Libby & Luft 1993; Abdolmohammadi & Shanteau, 1992; Bonner, 1999; Nugrahanti & Jahja, 2018; Hasan & Andreas, 2019).

Time pressure, audit structure and accountability, which are the elements of audit work environment, affect auditors' performance and judgment. Zuraidah, Takiah, Mohd & Iskandar (2010) asserted that

emotional intelligence level would decreased the negative effect of time pressure, audit structure and accountability and afterwards improved the audit judgment quality.

On the other hand, in some research studies, individual characteristics of audit professionals benefiting from opinion of experts during audit process have been measured by using variables such as ethical judgment and goal orientation of auditor (Rustiarini et al., 2021), professional skepticism (Ta et al., 2022), auditor's virtue (Libby & Thorne, 2012) and personality type (Chadegani & Kahrizsangi, 2020).

Rustiarini et al., (2021) investigate the effect of self-efficacy, goal orientation and professional commitment of audit professionals to find out the fraud cases in small-sized accounting firms.

Ta et al., (2022) investigate the crucial elements such as workload, incentives, time pressure, experience and knowledge influencing the professional skepticism of audit professionals in the country Vietnam. The study conclude that audit firms should arrange training courses for audit professionals to improve their professional competence.

Tsui & Gul (1996) investigating the interaction effects of locus of control revealed that ethical reasoning eased the tie between locus of control and the auditors' responses to concur with client's demands in an audit conflict situation.

As stated eloquently by MacDonald (1976:196); locus of control

is:

"the extent to which persons perceive contingency relationships between their actions and their outcomes. Persons who believe that they have some control over their destinies are called 'internals'; that is, they believe that at least some control resides within themselves. 'Externals', on the other hand, believe that their outcomes are determined by agents or factors extrinsic to themselves, for example, by fate, luck, chance, powerful others or the unpredictable."

Cullinan (2004) examined high profile recent fraud cases from perspective of Sarbanes-Oxley Act-SOA. He stated that the SOA is unlikely to be completely effective in dealing with future frauds.

Özbirecikli (2006) using Laczniac Model investigated the deficiencies of the auditor(s) during audit process of some high profile

company scandals and evaluated them from ethical point of view. He concluded that the deficiencies of the auditors in the said cases mostly consist of lack of due professional care and objectivity.

Studies done in Turkiye in similar fashion reveal that familial values and level of education of professional accountants has effect on their ethical behavior (Ural & Özbirecikli, 2004). Furthermore, Özbirecikli and Ural (2006) determined 44 different unethical behaviors creating crucial unethical consequences, and encountered in accounting and auditing professions in Turkiye.

In this study, we examine whether influential relationship between above-mentioned criteria comply with the professional ethical standards and whether the criteria considered by audit firms in recruitment process of candidate auditor comply with the fundamentals of code of ethics for independent auditors.

Research Method

The study was performed in two stages. In the first stage of the study, ten qualification statements of candidate auditors prepared based on professional ethics standards. Then, these statements were rated by 21 professionals using direct rating method. In this method participants rate each statement on a scale of 0-100, showing subjective assessment of importance of the qualification a candidate is expected to have for an auditor position. Although there are many different methods available for this type of study, direct rating method is the simplest and most preferred by the subjects and satisfactory test-retest reliability compare to other methods (Bottomley & Doyle, 2001). The main purpose in this stage is to verify the relevance of the ten statement used no more than as a justification of that items inclusion of the next stage of the study. Based on the average scores of the statements ten qualification statements were considered as the criteria for personnel recruitment of auditor firms.

In the second stage of the study, Decision Making Trial and Evaluation Laboratory (DEMATEL) method was employed to investigate relationship and importance of personnel recruitment criteria of the firms. The method was established by the Geneva Research Centre of the Battelle Memorial Institute in order to analyze causal relationships of complex systems (Gabus & Fontela, 1972). Since then, DEMATEL is one of the Multiple Attribute Decision Making (MADM) techniques that were widely used in various circumstances to investigate the relationship among components of a system. Recent years various methods were introduced to improve applicability of classical DEMATEL under conditions of fuzziness caused by limited information, subjectivity and vagueness. Si, You, Liu & Zhang (2018) conducted a comprehensive review about the methodologies and application of DEMATEL. In recent years, application area of the technique mostly covers, engineering (i.e. Gao, 2022; Chen, Qiao, Sun & Gao, 2022), business management (i.e. Vishwakarma, Dangayach, Meena & Gupta, 2022; Kumar, Raut, Sharma, Choubey, and Paul, 2022) and social sciences (i.e. Tsai & Shyr, 2022; Thavi, Narwane, Jhaveri & Raut, 2022). Likewise, DEMATEL was used in personnel selection problems in combination with the other MCDM methods such as Analytic Network Process (ANP) and Grey Relationship Analysis (GRA) for determining the weights/importance of criteria (Özgörmüs, Senocak & Gören, 2021; Kilic, Demirci & Delen, 2020) and exploring the interdependencies among evaluation criteria (Kabak, 2013; Aksakal & Dağdeviren, 2010). Compare to these studies, in this study classical DEMATEL technique was used for both purposes; investigation of the interdependencies and determination of the importance of personnel recruitment criteria.

The foremost benefit of DEMATEL is to support the decision making process by depicting the relations between elements according to the types of relations and their interdependencies. Thus, it provides important information for strategic decision making and indicating strategies for improvement in related circumstances. In the classical DEMATEL an integer scale of "0 (no influence)", "1 (low influence)", "2 (medium influence)", "3 (high influence)", and "4 (very high influence)" are administered for assessment of relationships.

DEMATEL can be applied in five steps in the following order (Lin & Tzeng, 2009);

Step 1 – Finding the average matrix: Using the classical DEMATEL integer scale, participants rate the influence of each criteria on each other. Resulting scores forms an evaluation matrix for each participant. In order to drive an average matrix A, mean values of the corresponding scores in the different matrices of participants are calculated.

Step 2 – Calculating the direct influence matrix: The direct influence matrix D, can be derived by normalizing the average matrix A using Eqs. (1) and (2).

$$D = sA, \qquad s > 0 \tag{1}$$

$$s = \min_{ij} \left[\frac{1}{\max_{1 \le i \le n} \sum_{j=1}^{n} |z_{ij}|}, \frac{1}{\max_{1 \le j \le n} \sum_{i=1}^{n} |z_{ij}|} \right] i, j = 1, 2, \dots, n \quad (2)$$

where

 $D = [d_{ij}]_{nxn}, \quad 0 \le d_{ij} < 1, \quad 0 < \sum_{j=1}^{n} d_{ij}, \sum_{i=1}^{n} d_{ij} \le 1 \text{ and}$ only one row or column equal 1.

Step 3 – Calculating the indirect influence matrix: It can be gained from applying Eq. (3).

$$ID = \sum_{i=2}^{\infty} D^{i} = D^{2} (I - D)^{-1}$$
(3)

Step 4 – Developing the total influence matrix: The total influence matrix T can be obtained as Eqs. (4) - (6).

$$T = D + ID \tag{4}$$

$$T = \sum_{i=1}^{\infty} D^{i} = D(I - D)^{-1}$$
(5)

$$T = [t_{ij}], \quad i, j = 1, 2, ..., n$$
 (6)

Step 5 – Obtaining the influence-relations map: In order to create the map, direct and indirect effects of criteria on each other needs to be calculated using Eqs. (7) and (8) using matrix T.

$$d_j = \sum_{j=1}^n t_{ij}, \quad i, j = 1, 2, ..., n$$
 (7)

$$r_i = \sum_{i=1}^n t_{ij}, \quad i, j = 1, 2, ..., n$$
 (8)

When j = i, $(d_i + r_i)$ displays the strength of influences given and received. If $(d_i - r_i)$ value is positive, then criterion *i* is affecting other criteria, and if $(d_i - r_i)$ value is negative, then criterion *i* is being influenced by other criterion. Then, using these two values a digraph map is formed to show influence-relations of each criterion.

The data used in this study was obtained from 17 participants who are independent audit firms registered in the Mediterranean region by applying a questionnaire in face to face interview setting. Using such interview setting has some advantages in capturing participant's responses compare to answering written questionnaires him/herself. As Lehman (1989:315) stated rightfully, "participants are likely to answer the questions according to the social norms instead of actual events" in a written questionnaire. Each interview took about 75-80 minutes. The participants were asked to make auditor recruitment criteria prioritization.

Professional Ethics Standards

The code of ethics for independent auditors passed by Public Oversight Board (KGK in Turkish abbreviation) in 2015 in Turkiye is shown in Table 1 and explained shortly in order to emphasize importance of the ethical criteria in audit profession.

Table 1: The code of ethics for independent auditors passed in 2015 in Turkiye

| The Code of Ethics |
|---|
| 1-Integrity: An accounting professional should be straightforward and honest in |
| all professional and business relationships. |

2-Objectivity: An accounting professional should not allow bias, conflict of interest or undue influence of others to override professional or business judgments.

3-Professional Competence and Due Care: An accounting professional has a continuing duty to maintain professional knowledge and skill at the level required to ensure that a client or employer receives competent professional service based on current developments in practice, legislation and techniques. An accounting professional should act diligently and in accordance with applicable technical and professional standards when providing professional services.

4-Confidentiality: An accounting professional should respect the confidentiality of information acquired as a result of professional and business relationships and should not disclose any such information to third parties without proper and specific authority unless there is a legal or professional right or duty to disclose. Confidential information acquired as a result of professional and business relationships should not be used for the personal advantage of the accounting professional or third parties.

5-Professional Behavior: An accounting professional should comply with relevant laws and regulations and should avoid any action that discredits the profession.

From KGK (2015). The code of ethics for independent auditors, pp.10-15.

In order to match the above-mentioned professional ethical principles with the criteria audit firms consider in recruitment process of candidate auditor in audit market practice, we made brainstorming with some audit related professionals operating in audit firms to obtain the qualifications/criteria they consider as follows.

- Having professional training and ethics education
- Having professional experience in audit profession
- Knowing a candidate personally

- Being hardworking and tidy
- Due care
- Having reference from a client
- Being able to work long office hours
- Being religious
- Putting audit firm's interest prior to client
- Doing what is asked in the audit process without questioning

As seen from Table 2, most of the qualifications/criteria audit firms consider in recruitment process of candidate auditor do not comply with its corresponding ethical principle.

 Table 2. Explanation of qualifications/criteria in recruitment process and the related ethical principle

| Qualification/criteria | Statement | Ethical Principle |
|--|-----------------------------------|--|
| Having professional training and ethics education | Professional training (C1) | Professional Competence |
| Having Professional experience in audit profession | Experience (C2) | Professional Competence |
| Knowing a candidate personally | Knowing personally (C3) | N/A |
| Being hardworking and tidy | Hardworking-tidy (C4) | N/A |
| Due care | Due care (C5) | Due Care |
| Having reference from a client | Reference (C6) | Non-Objectivity |
| Being able to work long office hours | Long office hours (C7) | N/A |
| Being religious | Religious (C8) | N/A |
| Putting audit firm's interest prior to client | Audit firm's interest (C9) | Non-Integrity & Non-Objectivity & Non-Professional behavior Non-Integrity & |
| Doing what is asked in the audit process without questioning | Working without questioning (C10) | Non-Objectivity & Non-Professional behavior |

Results

The data collected at the second stage of the study was analyzed using Excel software. In the following section calculation results of each step of DEMATEL method was presented in the related tables.

In order to obtain the initial average matrix A, a matrix is obtained for each participant's evaluations for the criteria. Then average of 17 matrices were calculated. Table 3 shows resulting average matrix.

| | C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | С9 | C10 |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C1 | 0.000 | 1.294 | 0.176 | 1.529 | 1.353 | 0.294 | 0.176 | 0.059 | 0.000 | 0.000 |
| C2 | 0.059 | 0.000 | 0.059 | 1.412 | 1.176 | 0.294 | 2.294 | 0.059 | 0.412 | 2.000 |
| C3 | 0.412 | 0.294 | 0.000 | 1.882 | 1.765 | 0.647 | 0.118 | 0.059 | 2.882 | 3.000 |
| C4 | 0.118 | 0.000 | 0.000 | 0.000 | 1.529 | 0.294 | 2.412 | 0.059 | 0.235 | 0.118 |
| C5 | 1.353 | 1.000 | 0.000 | 1.529 | 0.000 | 0.176 | 2.118 | 0.059 | 2.059 | 0.000 |
| C6 | 0.059 | 0.235 | 0.000 | 0.176 | 0.118 | 0.000 | 0.294 | 0.059 | 1.765 | 2.353 |
| C7 | 0.176 | 1.059 | 0.059 | 2.706 | 2.412 | 0.882 | 0.000 | 0.059 | 2.706 | 0.118 |
| C8 | 0.000 | 0.000 | 0.176 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.118 | 0.118 |
| С9 | 0.000 | 0.118 | 2.353 | 2.000 | 2.118 | 2.235 | 2.471 | 0.059 | 0.000 | 3.412 |
| C10 | 0.059 | 0.118 | 2.000 | 0.118 | 0.000 | 2.706 | 0.588 | 0.059 | 3.412 | 0.000 |
| | | | | | | | | | | |

Table 3. Initial average matrix A of the criteria

In the second step, direct influence matrix D was obtained by normalizing the average matrix A. using Eqs. (1) and (2). The sum of each of the rows and columns of this matrix yields the degree of direct influence of each criteria. As presented in Table 4, the degree of direct influence of *"audit firm's interest"* criterion is the most important one.

Table 4. Direct influence matrix D of the criteria

| | C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | С9 | C10 | Sum |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C1 | 0.000 | 0.088 | 0.012 | 0.104 | 0.092 | 0.020 | 0.012 | 0.004 | 0.000 | 0.000 | 0.331 |
| C2 | 0.004 | 0.000 | 0.004 | 0.096 | 0.080 | 0.020 | 0.155 | 0.004 | 0.028 | 0.135 | 0.526 |
| C3 | 0.028 | 0.020 | 0.000 | 0.127 | 0.120 | 0.044 | 0.008 | 0.004 | 0.195 | 0.203 | 0.749 |
| C4 | 0.008 | 0.000 | 0.000 | 0.000 | 0.104 | 0.020 | 0.163 | 0.004 | 0.016 | 0.008 | 0.323 |
| C5 | 0.092 | 0.068 | 0.000 | 0.104 | 0.000 | 0.012 | 0.143 | 0.004 | 0.139 | 0.000 | 0.562 |
| C6 | 0.004 | 0.016 | 0.000 | 0.012 | 0.008 | 0.000 | 0.020 | 0.004 | 0.120 | 0.159 | 0.343 |
| C7 | 0.012 | 0.072 | 0.004 | 0.183 | 0.163 | 0.060 | 0.000 | 0.004 | 0.183 | 0.008 | 0.689 |
| C8 | 0.000 | 0.000 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.008 | 0.008 | 0.028 |
| С9 | 0.000 | 0.008 | 0.159 | 0.135 | 0.143 | 0.151 | 0.167 | 0.004 | 0.000 | 0.231 | 1.000 |
| C10 | 0.004 | 0.008 | 0.135 | 0.008 | 0.000 | 0.183 | 0.040 | 0.004 | 0.231 | 0.000 | 0.614 |
| Sum | 0.151 | 0.279 | 0.327 | 0.769 | 0.709 | 0.510 | 0.709 | 0.036 | 0.920 | 0.753 | |

In the third stage; using Eq. (3), indirect influence matrix was obtained as shown in Table 5.

| | C1 | C2 | С3 | C4 | C5 | C6 | C7 | C8 | С9 | C10 | Sum |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C1 | 0.017 | 0.020 | 0.018 | 0.058 | 0.055 | 0.033 | 0.078 | 0.003 | 0.065 | 0.046 | 0.393 |
| C2 | 0.025 | 0.040 | 0.060 | 0.111 | 0.105 | 0.094 | 0.109 | 0.005 | 0.155 | 0.083 | 0.788 |
| C3 | 0.034 | 0.049 | 0.116 | 0.150 | 0.144 | 0.156 | 0.182 | 0.008 | 0.209 | 0.162 | 1.208 |
| C4 | 0.021 | 0.034 | 0.027 | 0.087 | 0.072 | 0.047 | 0.067 | 0.003 | 0.096 | 0.049 | 0.503 |
| C5 | 0.020 | 0.044 | 0.060 | 0.131 | 0.133 | 0.089 | 0.127 | 0.006 | 0.124 | 0.108 | 0.842 |
| C6 | 0.013 | 0.021 | 0.072 | 0.077 | 0.074 | 0.095 | 0.084 | 0.004 | 0.116 | 0.091 | 0.648 |
| C7 | 0.036 | 0.045 | 0.075 | 0.139 | 0.136 | 0.106 | 0.180 | 0.007 | 0.153 | 0.140 | 1.017 |
| C8 | 0.001 | 0.002 | 0.005 | 0.007 | 0.007 | 0.007 | 0.007 | 0.000 | 0.011 | 0.009 | 0.057 |
| С9 | 0.047 | 0.068 | 0.109 | 0.194 | 0.181 | 0.170 | 0.190 | 0.010 | 0.307 | 0.192 | 1.469 |
| C10 | 0.025 | 0.039 | 0.095 | 0.146 | 0.141 | 0.127 | 0.139 | 0.007 | 0.185 | 0.202 | 1.105 |
| Sum | 0.241 | 0.363 | 0.637 | 1.099 | 1.049 | 0.924 | 1.163 | 0.052 | 1.420 | 1.083 | |

Table 5. Indirect influence matrix of the criteria

In the fourth step, the total influence matrix was gained by employing Eqs. (4) - (6) that shows both direct and indirect influences of each criterion. Table 6 shows the final structure of criteria.

| | C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | С9 | C10 | Sum (d _i) |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------|
| C1 | 0.017 | 0.108 | 0.030 | 0.161 | 0.147 | 0.052 | 0.090 | 0.007 | 0.065 | 0.046 | 0.724 |
| C2 | 0.029 | 0.040 | 0.064 | 0.206 | 0.185 | 0.114 | 0.264 | 0.009 | 0.183 | 0.218 | 1.314 |
| C3 | 0.062 | 0.068 | 0.116 | 0.277 | 0.264 | 0.200 | 0.189 | 0.012 | 0.404 | 0.365 | 1.957 |
| C4 | 0.029 | 0.034 | 0.027 | 0.087 | 0.175 | 0.067 | 0.231 | 0.007 | 0.112 | 0.057 | 0.826 |
| C5 | 0.112 | 0.112 | 0.060 | 0.235 | 0.133 | 0.101 | 0.270 | 0.010 | 0.263 | 0.108 | 1.404 |
| C6 | 0.017 | 0.037 | 0.072 | 0.089 | 0.082 | 0.095 | 0.104 | 0.008 | 0.236 | 0.250 | 0.991 |
| C7 | 0.048 | 0.117 | 0.079 | 0.322 | 0.299 | 0.165 | 0.180 | 0.011 | 0.336 | 0.148 | 1.706 |
| C8 | 0.001 | 0.002 | 0.017 | 0.007 | 0.007 | 0.007 | 0.007 | 0.000 | 0.019 | 0.017 | 0.085 |
| С9 | 0.047 | 0.076 | 0.268 | 0.330 | 0.325 | 0.321 | 0.357 | 0.014 | 0.307 | 0.424 | 2.469 |
| C10 | 0.029 | 0.047 | 0.230 | 0.154 | 0.141 | 0.310 | 0.179 | 0.011 | 0.416 | 0.202 | 1.719 |
| Sum (ri) | 0.392 | 0.642 | 0.964 | 1.868 | 1.758 | 1.434 | 1.872 | 0.088 | 2.341 | 1.836 | |

Table 6. Total influence matrix T of the criteria

In the last step degree of total influence of the criteria was calculated using the sums of each of the rows and columns of matrix *T*. As mentioned earlier; $(d_i + r_i)$ value indicated the strength of influences given and received whereas, $(d_i - r_i)$ value shows direction of the influences.

As shown in the Table 7, the criterion "*audit firm's interest*", is the most influential criterion and affecting other criteria. On the other hand, "*long office hours*", "*working without questioning*", and "*due care*" have strong influence, however influenced by the others significantly. The

criteria "*long office hours*" is not mentioned and defined in the professional standards. However, it is seen that it is a valid criterion for the audit market.

| | Criteria | $d_i + r_i$ | d_i - r_i | Direction of Influence |
|-----|-----------------------------|-------------|---------------|---------------------------|
| C1 | Professional training | 1.116 | 0.332 | Cause |
| C2 | Experience | 1.956 | 0.672 | Cause |
| C3 | Knowing personally | 2.921 | 0.993 | Cause |
| C4 | Hardworking-tidy | 2.693 | -1.042 | Affected |
| C5 | Due care | 3.162 | -0.354 | Affected |
| C6 | Reference | 2.424 | -0.443 | Affected |
| C7 | Long office hours | 3.578 | -0.166 | Affected |
| C8 | Religious | 0.173 | -0.003 | Affected |
| С9 | Audit firm's interest | 4.809 | 0.128 | Cause |
| C10 | Working without questioning | 3.555 | -0.117 | Affected |

Table 7. Degree of total influence of the criteria

In order to better portray the contextual relationship among the criteria a graphical representation of relationships was depicted using an influence-relations map that shows interrelationship of criteria. For this purpose, using the elements of matrix T, effects of each criterion was converted into an impact digraph map which offers information about how criterion i influences criterion j. However, the map will be too composite to show the necessary information at this stage. In order to better depict the prominent effects signified by the elements of matrix T net influences of each criterion i over criterion j and criterion j over criterion i. By doing aforementioned simplification some of the influences were removed from the matrix. Table 8 displays the result of this operation.

Table 8. Net influence matrix T of the criteria

| | C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | С9 | C10 |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C1 | | 0.079 | | 0.132 | 0.035 | 0.035 | 0.042 | 0.005 | 0.018 | 0.017 |
| C2 | | | | 0.172 | 0.073 | 0.077 | 0.147 | 0.007 | 0.107 | 0.171 |
| C3 | 0.033 | 0.004 | | 0.250 | 0.204 | 0.127 | 0.110 | | 0.136 | 0.134 |
| C4 | | | | | | | | | | |
| C5 | | | | 0.059 | | 0.019 | | 0.003 | | |
| C6 | | | | 0.022 | | | | | | |
| C7 | | | | 0.092 | 0.029 | 0.061 | | 0.004 | | |
| C8 | | | 0.006 | | | | | | 0.005 | 0.007 |
| С9 | | | | 0.218 | 0.062 | 0.086 | 0.021 | | | 0.008 |
| C10 | | | | 0.097 | 0.033 | 0.060 | 0.031 | | | |

Using the net influence matrix, the influence-relation map was constructed. In Figure 1, each arrow depicts direction of the influence between each criterion. Highest influences shown in red thus, "knowing personally" (C3) has the most indirect influence over "hardworking-tidy" (C4), "due care" (C5), "audit firm's interest" (C9), "working without questioning" (C10), "reference" (C6), and "long office hours" (C7) in descending order. Likewise, "experience" (C2) criterion has strong influence over "hardworking-tidy" (C4), "working without questioning" (C10), "long office hours" (C7) criteria. Furthermore, compare to the other influencing criteria "audit firm's interest" (C9) criterion has only one strong influence which is on "hardworking-tidy" (C4) criterion. On the other hand, "professional training" (C4) has overall moderate influence over eight out of ten criteria except "hardworking-tidy" (C4) criterion which has strong influence on.

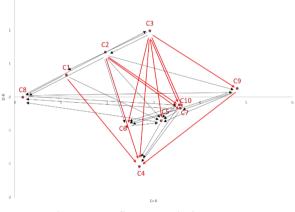


Figure 1. Influence-relations Map

Based on interrelationship between each criterion, using Eqs. (9) and (10) weights of each criterion was calculated. Table 9 shows that the criteria "*audit firm's interest*", "*long office hours*", and "*working without questioning*" are weighted highest, whereas "*religious*" criterion received the lowest rating.

$$w_i = \sqrt{(D_i + R_i)^2 + (D_i - R_i)^2}$$
(9)

$$W_i = {}^{W_i} / \sum_i^n w_i \tag{10}$$

| Criteria | Weight (Wi) | Ranks |
|----------------------------------|----------------|--------|
| Professional training | 0.043 | 9 |
| Experience Knowing personally | 0.077 0.114 | 8 5 |
| Hardworking-tidy | 0.107 | 6 |
| Due care | 0.118 | 4 |
| Reference | 0.091 | 7 |
| Long office hours | 0.133 | 2 |
| Religious | 0.006 | 10 |
| Audit firm's interest | 0.178 | 1 |
| Working without questioning | 0.132 | 3 |

Table 9. Weight of Criteria Based on Interdependency

Discussion

Comparing to the criteria of being religious, having professional training and ethics education, having professional experience in audit profession, and having reference from a client, it is seen that the criteria of putting audit firm's interest prior to client, being able to work long office hours, doing what is asked in the audit process without questioning, due care, knowing a candidate personally and being hardworking and tidy have dominant role on decision making process of recruitment of audit firms.

Putting audit firm's interest prior to client has the most significant weight among the others. This criterion also influences other criteria the most in making decision process of recruitment of audit firms. Having professional training and ethics education, having professional experience in audit profession and knowing a candidate personally influence other criteria in decision making process of recruitment as well.

In this context, it may mean that audit firms' priority in recruitment decision is in favor of an employee who considers audit firm's interest prior to client. However, interrelation influences of the criteria depict that knowing a candidate personally has the highest indirect influence across eight out of ten criteria and strongly affects "audit firm's interest" criterion as well. This finding is no coincidence, if you know the candidate personally one must expect to know candidate's personal traits and job related attitudes considered in the personnel recruitment criteria. Similarly, having professional experience in audit profession has strong influence on job related attitudes such as being hardworking and tidy, doing what is asked in the audit process without questioning, and working long office hours. Remarkably, being hardworking and tidy is the most affected criteria by others and received an average importance among the criteria. Although, it seems that the management of audit firm does not give much importance to this criterion, influential interrelations indicate that the role of this criterion differs widely depending on how each affecting criteria are rated for a given case. As one can expect, due to the influential interrelations among the criteria, having professional training and ethics education has the strongest influence on being hardworking and tidy in addition to the moderate influence on the remaining criteria.

Conclusion

Using DEMATEL method as an analysis tool in this study demonstrates that influential interrelations of criteria provide detailed, deeper understanding of decision making process in the market place and delivers valuable insights for policy developments in general. Thus application of alternative MADM methods in similar cases will provide comprehensive understanding and contribute to the advancement of applicability of such methods.

In audit profession, it is expected that auditors have some criteria such as professional competence, experience, due care, objectivity and integrity. However, it is seen from audit market practices that audit firms tend to prefer employee, who will consider audit firm's interest prior to client the most. Whereas according to professional standards, these candidate auditors should be objective and impartial throughout audit process. It means audit market practices in general in respect to decision making process of recruitment does not comply with professional ethics standards. Otherwise member of audit team and auditor of the future is not likely to contribute success of audit works.

The Regulation -the Code of Ethics- consists of many terms such as threats and safeguards, ethical conflict resolution, fees and other types of remuneration, gifts and hospitality, custody of client's assets, potential conflicts, acting with sufficient expertise, financial interests, and inducements. It is expressed in the Code of Ethics that professional values, ethics, and attitudes consider "value of relevant people". That is, the fundamental principles mentioned above say how auditors should behave by considering value of other relevant people.

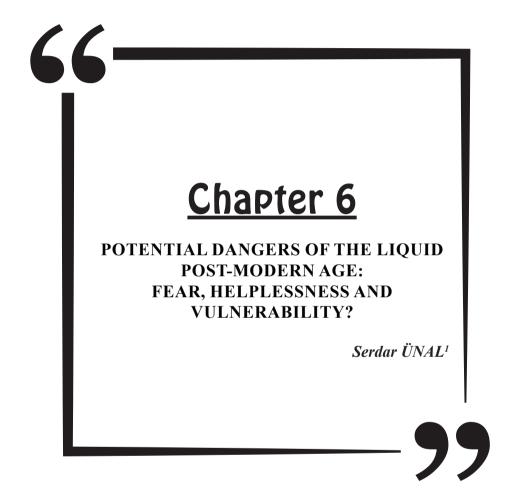
Although auditors are required to act in accordance with these principles, the unethical behaviors, which are in contradiction of these principles, continue in audit profession and as far as personal observations reveal, these unethical behaviors are unfortunately widespread in Turkiye.

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Introduction

In the century we live in, we can state that the fields of obscurity, incomprehensibility and unmanageability are gradually expanding and becoming widespread. The agenda of today's societies is completely focused on the risks and dangers that people face or may come across. Indeed, in recent years there has been a noticeable explosion in the number of real and potential new hazards compared to the past. Humanity now has all the weapons it needs to commit mass suicide, self-destruct, and destroy the rest of life on the planet (Bauman, 2020:91). Overcrowding of societies, global epidemics, incredible advances in digital technologies, economic crises, energy problems, advanced developments in chemical and nuclear technologies, and wars bring with them the potential to cause catastrophic and long-lasting damage to the world and all life forms it hosts. Life is increasingly portrayed as violent (Furedi, 2017:49). In the words of Bauman (2018), fluid life is an unstable, risky life that is constantly experienced in uncertain conditions. The most pressing and persistent concerns in such a life are fears of being caught asleep, not being able to keep up with fast-moving events, being left behind, missing expiration dates, burdening them with objects that are no longer desirable, hitting the change button or missing the moment that will change course before reaching the point of no return.

The mechanisms underlying potential crises and distress, whether experienced or not yet experienced, are unknown, elusive, incomprehensible and unmanageable to most people. In the century we live in, we observe that in many respects, people have greater fears in the face of problems experienced or may be experienced than in the past, and that they constantly feel at risk. Furedi (2017) states that people's feeling of risk is a common mood in societies and this situation determines behaviors in general. This mental state floats in vain and causes different anxieties and fears. The public's obsession with seeing not only important technological innovations but also everyday experiences as potential threats has a mood ready to react to any danger that comes up.

Risks affect all countries of the world and all social classes today. Modern societies are shaped by new types of risk, and their foundations are shaken by the global foresight of global catastrophes (Beck, 2014:357). People get the feeling that they live in a more risky, uncertain and insecure environment and more vulnerable. In this sense, it can be said that the feeling of fear, helplessness and vulnerability is the most striking feature of post-modern fluid times. As a matter of fact, we can say that today phenomena such as fear, anxiety, doubt, vulnerability and helplessness have become the usual components of individuals' daily lives. As a matter of fact, Ulrich Beck (2011) emphasized the characteristics of the world we live in at the beginning of the twenty-first century and argued that the new age contains risks and dangers that have the potential to completely destroy human life. In fact, as Giddens (2010:230) emphasizes, living in a secular risk culture is inherently unsettling, and anxieties can be particularly prominent and effective at critical moments. Fears of the liquid world place the prospect of potential destruction in people's minds. In fact, risk calculations based on experience and rationality are turned upside down if disasters that threaten everyone are predicted as a result of the potential for destruction. From this moment on, it is necessary to take into account all possible, more or less impossible scenarios. Therefore, imagination, doubt, fiction and fear must be added to the knowledge gained from experience and science. The border between rationality and hysteria blurs (Beck, 2014:359).

In this context, the world we live in today is perceived as full of dangers. In this century where we live without certainty, security and security, potential fearful events are like a part of our lives (Bauman, 2020:30). In addition, today's dangers and fears are multidimensional, diverse and difficult to understand. First of all, man is afraid of what he does not know, cannot explain or understand. People from different social, gender and age categories have their own unique fears. There are also fears that we all share, no matter what part of the world we were born in or chose (or were forced to) live in. However, the problem is that these fears are not easily understood. They are more frightening because they are so difficult to understand, but even more terrifying because of the helplessness they evoke (Bauman, 2020:30-31).

According to Giddens (1990) such a situation has done more than discourage or compel us to believe in the assumption that the advent of modernity will lead to the formation of a happier and safer social order. As stated by Balandier (2019:9), in today's atmosphere of fear and anxiety that nothingness gains space behind suspicious appearances and impotence, closure has become a shelter against the expectation of worsening. On the one hand, there are the victories of technical expertise. On the other hand, there is a disorientation, a stifling introversion, resurrected or crudely overhauled beliefs that keep the pursuit of protection going. There is also the following contrast: On the one hand, the rise of the post-human, who ended the era of wandering in history and completed himself; on the other hand, the void into which things that provide meaning and connection are swirled like a whirlpool.

So many threats to human existence have been reported in recent years that people have come to wait for a savior to descend from the sky. Our imagination always interprets events in the most negative way. Massive disaster scenarios are constantly being produced in connection with various risks (Furedi, 2017:50). According to Slovic (1987), the vast majority of people's experiences of dangers originate from the news media, which deals with setbacks and threats in different parts of the world. For example, the dominant perception among most people is that they face more dangers and risks today than in the past, and that the potential dangers in the future will be much greater than they are today. Beck (2011:50) argues that with the existence of modern risk, danger, chaos and uncertainty become universal. Uncertainty, future anxiety, risk, fear and insecurity are factors that affect people's relationships with others.

So, how should one position himself in such an environment, and how not to be trapped in this fault rupture between all and nothing? It is a confinement that existing individualism softens by creating imitations of windows on the wall. A prison in which hope fades and leaves everyone to the consequences of the alternative movement born of exaggerated sentimentality and overwhelming impotence. Contemporary time, then, is just a series of moments in which beliefs, certainties, doubts, and anxieties collide (Balandier, 2019:9-10). As a matter of fact, in the world we live in today, there is no safe shelter where people can hide. In the liquid modern world, dangers and fears also display a liquid feature. Today, the feeling of helplessness and vulnerability are perhaps the greatest emotions ever felt. In this direction, it is aimed to explain the basic dynamics underlying people's radical fear of everything, whether there is a real danger or not, and as a result of this feeling of helplessness, imprisonment and vulnerability in social structures where the perception of risk and danger is common.

Today's Dangers and Fears: A Feeling of Helplessness and Vulnerability

The most technologically equipped generation of human history is the generation most overwhelmed by the feelings of insecurity and helplessness (Bauman, 2020:123). According to a common understanding, modernity is a double-ended trend. Because, while it threatens our ontological security, that is, our trust in the social and material environment, it also increases the possibility of risk and anxiety in abstract societies, as well as the demand for trust (Marshall, 1999:289). In this sense, with the transition from the traditional lifestyle to the modern lifestyle, more uncertainty and insecurity began to prevail in societies. In this sense, individuals' sensitivity to risk has increased along with their decision-making needs, so they have come to interpret daily life in the context of risk (Giddens & Sutton, 2021). What makes the world and people vulnerable today is the danger of incalculable possibilities (Bauman, 2020:121).

According to Furedi (2017:45), risk is the possibility of damage, injury, illness, death and other negativities to occur in connection with a particular hazard. Undoubtedly, those who think and calculate more about risks are, of course, their victims, and over time they have become experts who gather information about risks and their consequences. As Slovic (1987) states, research on basic perceptions and cognitions has shown that difficulties in understanding probabilistic processes, biased media coverage, misleading personal experiences, and the anxieties generated by life's gambles cause uncertainty to be denied, risks to be misjudged (sometimes overestimated and sometimes underestimated), and judgments of fact to be held with unwarranted confidence. Expert's judgments appear to be prone to many of the same biases as those of the general public, particularly when experts are forced to go beyond the limits of available data and rely on intuition.

As a matter of fact, in the century we live in, there is a widespread belief that people have greater anxieties and fears in many respects than in the past and live in a more insecure environment full of risks. It can be said that the issue of risk and trust erosion is one of the most important features of post-modern fluid times. In fact, as Robert Castel (2004) reveals in his analysis of current concerns fueled by insecurity, we, at least in developed countries, undoubtedly live in some of the safest societies that have ever existed, yet contrary to objective evidence, we, the most pampered and flattered people, are more threatened, we feel insecure and scared. We are more prone to panic, more passionate about safety and everything related to safety than most people in other societies (Bauman, 2020:123-124). However, Furedi (2017) argues that the basis of the risk society is the belief that man is surrounded by destructive forces that threaten his daily life. However, depending on a number of more specific reasons, our personal experiences also shape our imaginations and fears, although the fears we experience today are caused by external factors. Therefore, the state of risk and insecurity, which is common not only among individuals but also among societies today, seems to have caused fear and suspicion to be an integral part of daily life (Berger et al., 1985; Wagner, 1996).

In any case, in this century full of risks in which we live without certainty, security and safety, potential fearful events seem to be a part of our lives. According to Furedi (2017), one of the assumptions affecting the risk literature today is that we face more risks and dangers than in the past. Many people today believe that social, economic, and scientific progress brings new and greater problems. In fact, the world of what we assume as the other in a risk culture is always a dark space full of unknowns, creating anxiety and fear for the future. This generated fear or anxiety often reinforces the idea that we are living with dangerous strangers.

The fears we experience or feel today are many, varied and difficult to understand. Young defined fear, which is felt intensely today, as an emotional process that emerges with the perception of the environment, activates the internal organs, and manifests itself in the body, behavior and consciousness (Cüceloğlu, 1998:264). Human beings are afraid, above all, of what they do not know, explain or understand (Tok, 1998:62). According to Bauman (2020:31) since we do not understand the origin and logic of fears, we are often confused about taking precautions, let alone preventing or fighting against the dangers they indicate. The dangers we fear limit our ability to act. We find ourselves in a situation not so different from a confused child Our fears are often unreasonable. The fears that haunt most people may be similar in each case, but we assume that each of us will fight them individually

Essentially, the relationship between fear and community is a type of relationship that finds its origins in the deep. For the first person, who was afraid of many things he did not know, socialization was a way to alleviate their fears and to get rid of them (Freedman et al., 1998: 76). However, the socialization process that enables people to get rid of their fears has also been the source of new fears (isolation from society, etc.). Human history is replete with examples of cultural manifestations of fear. In fact, we humans fear what we cannot manage. We call this inability to manage the inability to reason. What we call reasoning about something is our knowledge of dealing with it. Reason arises from the ability to manage. What we cannot manage is unknown to us, and the unknown is frightening. Fear is another name we give to our vulnerability (Bauman, 2020:116).

According to Furedi (2017), it is difficult to trust a person in such a society where the perception of a world full of dangerous strangers is very common today. Fear or anxiety in the face of strangers and risks is directly proportional to the decrease in trust. In fact, fear is the name we give to uncertainty and our ignorance of what to do and what not to do about it (Bauman, 2020:8). In another definition, fear is a mechanism that enables a person to concentrate his mind when faced with an unexpected and unpredictable situation (Furedi, 2017:8). Fear is an emotion familiar to every living creature. Humans share this experience with animals. Both animals and humans oscillate between the alternatives of fleeing and attacking in the face of a danger that threatens their lives. In addition, people know something else: a type of secondary fear, that is, a derivative fear that drives people's behavior regardless of whether a socially and culturally reverted fear or threat is directly present (see Lagrange, 1995). Secondary fear is a remnant of an acquired experience from a past threat. This secondary fear can be viewed as a relic after a past experience that has become an important factor in shaping human behavior, even if it is no longer a direct threat to life (Bauman, 2020:9-10).

The dangers that a person fears (the derivative fears they provoke) can be of three types. Some threaten body or property. Others are of a more general nature, threatening the permanence and reliability of the social order upon which the security of life, survival in the event of sickness or old age, depends. Then there are the dangers that threaten one's place in the world, that is, their position in the social hierarchy, their identity, and more generally their immunity to social corruption and exclusion. However, numerous studies show that derivative fear is easily resolved when the survivor is aware of the dangers that cause it (Bauman, 2020:10). People shaken by this with a sense of insecurity and vulnerability may interpret a derivative fear as relating to any of these three types of danger, regardless of the expression of their contribution and responsibility for them. Defensive or aggressive responses that ultimately aim to reduce fear thus aim away from the dangers that are really responsible for the assumption of distrust (Bauman, 2020:11).

Western societies are under the influence of a culture of fear. Some scientists think the fears are likely to materialize in the coming decades. They imagine scenarios in which disaster avoidance seems unlikely, not only because it is impossible to predict how the sciences will develop and which ones they will include in their unprecedented work, but also because the conditions for devastating catastrophes to occur have already occurred (Balandier, 2019:109). The basis of this culture of fear is the belief that man is surrounded by destructive forces that threaten his daily life. The line separating fact from science fiction is becoming increasingly blurred (Furedi, 2017:8). The self-generating and possibly inexhaustible source of our anxiety and fear is our obsession with security and the resulting intolerance for even the slightest breach of security measures (Bauman, 2020:159).

As a matter of fact, presenting the developing events or disasters to the society in a way that creates an atmosphere of exaggerated risk and panic, with the effect of late modernity, puts today's risk societies, which perceive everything as risk, to more panic and leads to the formation of a culture of fear in societies. In this framework, one of the natural consequences of the risk and insecurity environment is that people become radically suspicious of everything in their environment and generate new or derivative fears. Fearful rumors about new dangers not only increase people's anxiety and [derivative] fears, these rumors strengthen existing fears and change people's lifestyles (Furedi, 2017:11). In general, in an environment of risk and fear, where security and prudence become the most important value, the possibility of people to be worried, suspicious or threatened by everything, whether they are real or not, naturally increases. In addition, individuals of the liquid modern world, whether there is a real threat or not, tend to see

avoiding trouble as a better remedy than fighting it (Bauman, 2020:88). This situation undoubtedly creates the feeling that people are more help-less and vulnerable in the face of possible risks and threats.

Unsuccessful Searches for Reliable Connections in Fluid Times

People living in the most developed parts of the world (i.e., the wealthiest and most modern parts of the world) are objectively the safest people in human history. The dangers that threaten to shorten our lives, as current statistics show, are less frequent and less frequent than in the past and in other parts of the planet. We also have highly ingenious and effective tools to anticipate, protect against and combat hazards that can kill or sicken us prematurely (Bauman, 2020:157-158). However, today's experienced reality is a strong sense of insecurity and vulnerability. In other words, people, especially those living in Western societies, are far from experiences such as sickness, pain and death compared to the past. In addition, personal security has increased at an unprecedented rate. But fear is spreading more and more into our lives (Furedi, 2017:8). A feeling of intense insecurity arises not so much from a lack of protection as from an endless search for protection and a frantic pursuit of security (Bauman, 2020:15). This quest for protection and security triggers the need to build more robust and reliable networks and connections. In fact, the human being, who broke off from his harmonious relationship with nature in his quest to live freely in better conditions, could not find another relationship pattern that could replace the togetherness he left and give meaning to his life, nor could he return to the nature he had broken (Bahadır, 2002:138). As a matter of fact, modern individuals have a greater need to establish reliable networks that can make them feel better.

In late modernity or the risk society, the desire to achieve solidarity has largely become an effort to avoid danger. The effort to stay away from dangers, on the other hand, resulted in the generation of reflexivity by questioning the risks it produced, although late modernity produced risks (Ritzer & Stepnisky, 2021). However, our need and desire to forge more solid and reliable bonds in fluid modern times than in any other period only raises anxiety. While we cannot ease our doubts or doubts, stop sensing our treachery and fearing disappointment, we passionately seek a wider network of friendships and fellowships (Bauman, 2020:87). However, individualized society conditions are not suitable for solidarity action. The individualized society has shattered the social bonds that are the basis of solidarity action (Bauman, 2020:32). As Fukuyama (1995:10-11) observes, the consequences of weakening trust and socialization can be seen in a series of changes in society: an increase in violent crime and such cases; disintegration of the family structure; the decline of a number of social structures such as neighborhood groups, places of worship, unions and charities; Feeling that you do not belong to a common community and shared values with other people. We can say that the modern type of insecurity is mostly determined by human evil and fear of human crimes. It is about refusing to trust other people's loyalty, devotion, and reliability (Bauman, 2020:160). According to Furedi (2001:172), the other side of this process is social isolation, a sense of vulnerability and an increased sense of being at risk.

Of course, doubt has its mental and moral limits. Unlimited suspicion leads to both individual and social paralysis (Berger & Zijderveld, 2018:123). From a sociological point of view, it is seen that doubt undermines the trust given by institutions. If it works well, corporate trust is the background of automatic, ordinary, traditional society. Doubt, which has no limits and radically destroys any trust, leads to the individual thinking endlessly about options and an unproductive subjectivity that constantly weighs all possibilities (Berger & Zijderveld, 2018:124). In this sense, the different parts of the daily lives of people surrounded by fear and doubt bring them face to face with worlds of meaning and experience that are extremely different and often brutally contrasting (Berger et al., 1985; Wagner, 1996). This state of risk, fear, anxiety and insecurity becomes the dominant element of public and social life after a while. When the border between rationality and hysteria gets blurred, the creation of an other detached from reality based on extreme doubt on the basis of in-groups and out-groups distinction becomes open to all kinds of prejudices and polemics.

There are a number of mental strategies that people use to make sense of an uncertain world. While these rules may apply in some cases, in some cases they cause large and persistent biases that have serious implications for risk assessment. When these prejudices increase, suspicion and fear begin to increase. If doubt undermines good corporate trust, it creates deep-seated discomfort. As Bauman (2014:26) explains, anxiety has no specific cause and the resulting fear can easily be attributed to the wrong reasons and lead to taking actions that are obviously unrelated to the real cause. When the real causes of distress are difficult to detect and even harder to control, there is a strong tendency to construct hypothetical but believable criminals against whom one can take reasonable defensive (even better, offensive) action.

The culture of fear alienates people from each other. This culture creates an atmosphere of suspicion that prevents people from struggling with the problems facing society (Furedi, 2017:19). We may be looking in completely different directions and avoiding each other's eyes, but we seem to be crammed into the same boat with no reliable compass and no one at the helm. None of us believes that he is pursuing his own self-interest, defending privileges already achieved, or claiming a share of privileges hitherto denied. Instead, all parties today seem to be fighting for eternal, universal and absolute values (Bauman, 2020:138-139). Also, when fear takes over the minds, the problems and difficulties in the world begin to be exaggerated and possible solutions begin to be ignored. Fear and panic have a self-justifying dynamic (Furedi, 2017:13). Undoubtedly, situations such as risk, anxiety, fear and doubt, which have become a way of life or accepted as the normals of daily life, have an impact on individual and social behaviors. The high level of risk perception, suspicion and prudence in societies can be considered as the main source of conflicts between individuals and groups. In addition, the extreme or radical state of these phenomena can turn into a feeling that feeds the act of destruction.

Conclusion

In a risk and fear society where feeling safe has become the most important value, the possibility of doubting everything and everyone at any moment naturally rises. It is not surprising that trust and doubt play an important role in the effort to explain the stability or instability of human relationships (Kee & Knox, 1970:357). The most important consequence of excessive skepticism for people on the street is the need to respond appropriately to the conflicting claims of competing abstract system types. However, doubt also probably produces more widespread anxieties, [fears] and paranoia (Giddens, 2010:229). Fear is most terrifying when it is pervasive, diffuse, uncertain, disconnected, unfixed, roaming, without a clear address or cause, when the threat we should fear is ubiquitous and nowhere to be seen (Bauman, 2020:8). As a matter of fact, in the world we live in today, there is no safe shelter where people can hide. In the liquid modern world, dangers and fears also display a liquid feature. Today, the feeling of helplessness and vulnerability is perhaps the greatest emotion ever felt.

When the phenomena such as trust, risk, anxiety, fear and doubt, which have a decisive effect on social behavior, become extreme, the individuals' feeling of being under threat and the perception of security need against it, whether it is based on an objective basis or not, turns into a discourse and culture after a while. This can cause people to become suspicious of everything and everyone, and to marginalize everything and everyone. The understanding emerges that we are all in danger and we are all in danger to each other (Bauman, 2020:119). Fears cause us to act on the defensive, which in turn provides directness, concreteness, and credibility to real or assumed threats that are supposed to spread fear. Fear is rooted in our motives and goals, ingrained in our actions and filling our daily routine (Bauman, 2020:162).

In this sense, extreme fears and doubts can be produced relatively independently of daily real interactions or experiences, as a result of a mental production of threat perception rather than through concrete experiences. In this sense, fear, which we call derivative fear, is a mood defined as the feeling of being vulnerable to danger, a feeling of insecurity and vulnerability. A person who has internalized such a world image of insecurity and vulnerability begins to behave as if he is constantly facing danger, even when there is no real threat. Derivative fear turns into a self-generating mechanism (Bauman, 2020:10). In social conditions dominated by risk and fear, the perception of truth can differ for everyone depending on the nature of the knowledge, and therefore a subjective understanding of reality rather than objective reality can become widespread.

Castel (2004) blames modern individualization for this situation. Modern individuals, who are told that they should pursue their own interests and satisfaction every day, believe that other individuals around them are guided by similar egoistic motives. Therefore, people can no longer expect mutual kindness and solidarity from each other (Bauman, 2020:161). In such environments, people become marginalized and marginalize others. They harbor deep distrust of others and as a result society becomes chaotic. Because the fear caused by excessive doubt is such that the people you marginalize become your opponent and your opponent. As a matter of fact, the acceptance of the other as a social reality, which can be subjectively and biased beyond objective reality based on doubt and fear, is becoming common and commonplace. In such a society, an existential insecurity arises. This situation increases the chronic fragility of human bonds in a vicious circle and contributes to the fears created by this vulnerability (Bauman, 2020:161). As a result, as Bahadır (2002:139) states, when we look at the relationship of the individual with life from the perspective of the future, it is seen that the dominant factor is anxiety and fear. On the other hand, the balance of hope-hopelessness changed in favor of hopelessness; On the other hand, it can be said that optimism gradually weakened and left its place to pessimism. However, we can also say that today's post-modern societies and individuals are making an intense effort to somehow regain the peace they lost. Also, as Balandier (2019:119) emphasizes, perhaps we should no longer want to change the face of the world, because in its course the world is changing at an ever-increasing pace, and what it will actually turn into is unknown. While people of the post-modern era are building their future, they should put aside their derivative fears and anxieties and reconsider their personal and social achievements in the historical process in a manner worthy of human dignity.

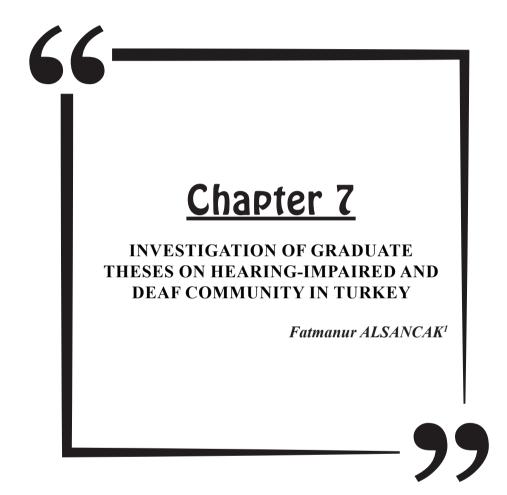
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Introduction

World Health Organization predicted that the number of individuals with hearing loss could grow to 2.5 billion by 2050 and has warned countries to take measures in the World Hearing Report published in March 2021. According to the official records in Turkey, the number of people with hearing impairment at various levels is predicted to be approximately 3.5 million (İEF, 2017; Kemaloğlu, 2016). However, current data are needed in this aspect. According to the 2011 Population and Housing Research, there were 863000 people with hearing difficulty. 231389 people registered to the national disabled database suffered from hearing impairment; however, only people with health committee report were included in this number (AÇSHB, 2019).

The disability studies in Turkey have advanced in every aspect of society in various fields, from health, family, technology to art. This progress is undoubtedly in a positive direction and has a proactive dimension. Higher education has a significant role in ensuring the medical, social, economic and legal accessibility of disabled people and on the studies focusing on their social integration. The scientific studies of the universities direct an essential part of this role. The politics of disabled people are accelerated with the contributions of academic disciplines. The developments related to the hearing-impaired as a part of these studies touch the lives of deaf people.

The policies of the Council of Higher Education for hearing-impaired students have come into prominence in recent years. Specifically, the Council published a grammar book and dictionary within the scope of the Turkish Sign Language Grammar Book and Dictionary Project with the target of accessible universities. It started legislative work for Turkish Sign Language and studies for the education system of interpreters for sign language.

According to the 2017-2018 Information Management System Data of the Council of Higher Education, the number of hearing-impaired students in higher education is 775 (YÖK, 2019). Apart from the practices for the hearing-impaired students in the education system (together with non-hearing-impaired students or separately from them), there are a limited number of undergraduate and associate programs the hearing-impaired students enrol in the Integrated School for Handicapped of Anadolu University. There is, unfortunately, no arrangement for hearing-impaired and deaf students at the graduate level.

An increase is seen in the studies on the deaf community and hearing-impaired people in Turkey, both in a social form in the eyes of the deaf community and a pathological perspective in the eyes of "hearing-impaired people". The literature related to hearing loss and hearing impairment advances in an intertwined way and expands by adding the deaf studies. Theses, a part of graduate education, consist a significant part of these scientific studies. The first theses on deaf and hearing disabilities were conducted in 1978. It is essential to understand the processes the studies have gone through to our day. It is an undeniable fact that scientific studies conducted have directed the lives of hearing-impaired people. Starting from this point, it was necessary to analyze graduate theses conducted in Turkey on hearing-impaired and deaf people to point out their efficiency and power in doing what was expected from them and determine the gaps in the field. For this aim, the graduate theses on hearing-impaired and deaf individuals conducted between 1978-2020 have been classified into different academic disciplines and discussed.

Method

Design: This research was designed as a bibliographic study. The study classified the graduate theses in the national database in Turkey on hearing impairment and the deaf community and presented scientific comments and discussions on the studies. The studies employing descriptive pattern try to answer various questions such as "What is the current situation/state of the art in the studies? Where are we? What do we want to do? Which direction we should go?" based on the current data in the present time (Kaptan, 1998). The aim is to analyze the graduate theses prepared in this area regarding their publication year, topics, results, and recommendations to determine their efficiency and power in doing what was expected from them and point out the gaps in the field. The study is planned in the survey model; the data were collected using the document analysis. The study is descriptive research in terms of the function of the information.

Population and Sampling: The population of the study employing the document analysis method consists of graduate theses published in 1978-2020 in human sciences, social sciences, administrative sciences, engineering sciences, natural sciences, and health sciences. The sample group selected from this population consists of 265 theses on hearing-impaired and deafness among the theses in the last 42 years.

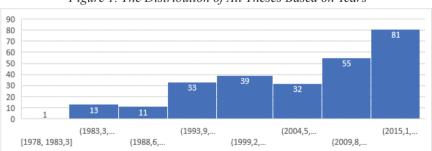
Data Collection: This research was started by scanning the theses on hearing-impaired and deaf studies in the National Thesis Center system of the Council of Higher Education. These resources were reached with the keywords "hearing", "hearing impairment", "hearing-impaired", "deaf", "deafness", and "deaf community". The data obtained by document scanning were categorized in terms of various criteria. The theses with limited access via the thesis centre were reached via their extended abstract on the system, and their aims, method and results were examined.

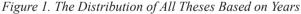
Data Analysis: The data on the theses were entered into a worksheet in the Microsoft Excel program and classified according to various themes. The theses were divided into three groups as social sciences, natural sciences-engineering sciences and health sciences. Then, they were subjected to bibliometric analysis. Each group was divided into sub-disciplines. The contents of the theses were read repeatedly and examined. The discussions for different academic disciplines were presented. The obtained results were interpreted and discussed in the scientific context. In this aspect, the study is descriptive in terms of the function of the information.

This study was conducted in compliance with all the rules in the Guideline for Scientific Research and Publication Ethics for Higher Education institutions. The ethical approval for the study was given by Sakarya University Ethical Committee on the commission meeting numbered 34, dated 05.05.2021, with the decision number "06".

Findings

The study's data consists of master theses and doctoral dissertations on hearing-impaired people and the deaf community in the social sciences, humanities, administrative sciences, natural and engineering sciences, and health sciences. The data were categorized under three main heading according to the scientific fields and then analyzed. Two hundred three theses were reached in social, human and administrative sciences, 14 in natural and engineering sciences and 48 in health sciences.





A regular upward trend can be seen in the graduate theses conducted between 1978-2020 on hearing-impaired and deaf people. The increase started in the 1990s, and the hearing-impaired and deaf people were more frequently selected as research topic between 2015-2020, with 81 theses conducted during this period. The number of current graduate theses on hearing-impaired and deaf people is also on the increase. The increasing number of theses is an essential point for the proliferation of academic studies on the deaf community and the establishment of the related literature to reflect the scientific studies on the lives of the deaf community.

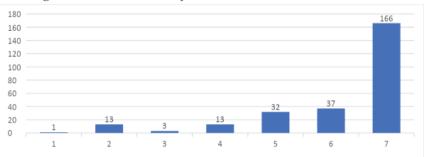


Figure 2. The Distribution of All Theses Based on Academic Fields

The general view of the graduate theses on hearing-impaired and deaf people conducted in Turkey reveals that the majority (203/n=265) of these theses were conducted in social sciences. Master's theses constitute the majority of theses conducted in this field. This fact can be associated with the awareness-raising about the problems of the deaf community in the public sphere, particularly the education system. Scientific studies have gained momentum with increasing the visibility of the civilian organization of deaf and hearing-impaired people. Master's theses constitute the majority of the graduate theses (227/n=265). This difference between master theses and doctoral dissertations is expected as the number of master programs is higher than the doctoral programs. Thus the number of students graduating with a masters degree is higher than PhD students.

Theses conducted in Social, Human and Administrative Sciences

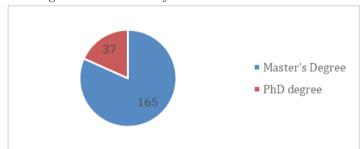
Two hundred three theses were found in the social sciences studying hearing-impaired and deaf people. Table 3 presents the distribution of theses in these theses according to different academic disciplines.

| Field | Thesis Type | Thesis Number (N) | % | |
|----------------------|-----------------|-------------------|------|--|
| | Master's Degree | 102 | | |
| Educational | PhD degree | 26 | 63.2 | |
| Sciences | Total | 128 | | |
| | Master's Degree | 30 | | |
| Sports Sciences | PhD degree | 9 | 19.3 | |
| - | Total | 39 | | |
| | Master's Degree | 16 | | |
| Psychology | PhD degree | 1 | 8.4 | |
| | Total | 17 | | |
| | Master's Degree | 5 | | |
| Home Economics | PhD degree | - | 2.5 | |
| | Total | 5 | | |
| | Master's Degree | 2 | | |
| Sociology | PhD degree | 1 | 1.5 | |
| | Total | 3 | | |
| | Master's Degree | 2 | | |
| Social Work | PhD degree | - | 0.9 | |
| | Total | 2 | | |
| | Master's Degree | 2 | | |
| Business | PhD degree | - | 0.9 | |
| Dusiness | Total | 2 | | |
| | Master's Degree | 2 | | |
| Music | PhD degree | - | 0.9 | |
| | Total | 2 | | |
| | Master's Degree | 2 | | |
| Fine Arts | PhD degree | - | 0.9 | |
| | Total | 2 | | |
| | Master's Degree | 1 | | |
| Translation and | PhD degree | - | 0.5 | |
| Interpreting | Total | 1 | | |
| | Master's Degree | 1 | | |
| Architecture | PhD degree | - | 0.5 | |
| <i>i</i> noniteeture | Total | 1 | | |
| | Master's Degree | 1 | | |
| Anthropology | PhD degree | - | 0.5 | |
| | Total | 1 | | |
| Grand Total | | 203 | 100 | |

Table 3. Distribution of Theses conducted in Social, Human and Administrative Sciences

The theses conducted in the education sciences field constitute most graduate theses on hearing-impaired and deaf people in social, human and administrative sciences (63.2%). The studies focusing on the education of hearing-impaired people are primarily conducted in special education, mu-

sic, psychological counselling and guidance. After education sciences, the highest number of theses were conducted in sports sciences. The number of theses on the hearing-impaired and deaf community in anthropology, architecture, translation, and interpreting disciplines seems to be quite a few. Considering that the deaf community is cultural, the lack of theses in sociological and anthropological fields was noticed. In addition, sign language is the communication language of the deaf community and is in the research area of translation studies. A gap of studies in the related field was also found.





Master theses constitute most 128 studies (80%) on hearing-impaired and deaf people in education sciences. It was found that theses on hearing-impaired and deaf people in education sciences are primarily special education-oriented studies. These studies, formed around the education of the hearing-impaired children and their families, can be said to have increased in numbers after 2015.

It is observed that the educational studies on hearing-impaired people first started in Eskischir Province, and Anatolian University has been the pioneer in this matter. The first graduate theses were conducted at the Institute of Social Sciences at Anadolu University and focused on the education of hearing-impaired people with special teaching methods. The majority of these theses have been conducted in the Department of Special Education. The fact that hearing-impaired people are taken as the research subject of academic studies in the education field since 2000 can be associated with increased visibility of hearing-impaired children.

Thirty-nine theses on hearing-impaired and deaf people were found in the sports sciences. Thirty-one of these theses were at a master level, while the remaining 8 were doctoral dissertations. The first of theses conducted in this field is the master thesis of Tarık Sevindi entitled "The investigation of reaction times of the 11-14 years old students who had deafness problem and who had not deafness problem", published in 2002.

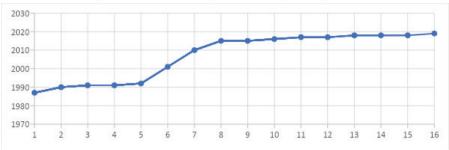


Figure 5. Distribution of Theses in Psychology Field

Seventeen graduate theses on hearing-impaired and deaf people were conducted in the psychology field, only 1 of which was a doctoral dissertation. The first of theses conducted in this field is the master thesis of Hayal Uğurlu entitled "Investigation of the Effect of Integration on the Psychosocial Development of Hearing-impaired Children in 8-11 Age Group", published in 1987. The doctoral dissertation in this field was prepared by Z. Hale Ergenç. The dissertation was entitled "The Development of Simultaneous and Successive Memories in Hearing-impaired Children and Effect on Their Education" and completed in İstanbul University Institute of Social Sciences. The majority of the theses conducted in psychology focuses on hearing-impaired children. In addition, no graduate thesis on hearing-impaired or deaf people was found in the psychology field between 1992-2001. The absence of any thesis in this field for nine years is striking.

Five graduate theses were found in the Home Economics field. The first of theses conducted in this field is the master thesis of Şenay Pektaş entitled "The Investigation of Recipient and Expressive Language Oriented Verbal Expressions of Hearing-impaired Children in 6-8 age group and the Comparision with the Normal Hearing Peers", published in 1993. The last of the theses in this field is the master thesis of Rafet Fırat Şipal entitled "A study on the level of social adjustment of 7-11 years old hearing-impaired and normally hearing children", published in 2002. Both studies were conducted at Hacettepe University Institute of Health Sciences. A lack of graduate theses on hearing-impaired and deaf individuals since 2002 can be seen in this field.

Three graduate theses on hearing-impaired people were found in the sociology field, while two theses were reached in the social work field. The findings of these studies are presented in Table 6.

| | Table 6. Theses in Sociology and Social Work Field | | | | |
|------------------------|--|--|---|--|---|
| Thesis Type | MD | Qıdq | MD | MD | MD |
| Year | 2003 | 2012 | 2018 | 2017 | 2020 |
| Content | This study, conducted to determine the adaptation levels of hearing- impaired children in 12-16 age groups to social life, found that the children have normal social relations and held onto life despite nearly half of them inbred and had insufficient education. | According to this study, focusing on the sociocultural context of deaf sports in Turkey, contested discourses and perspectives, associated beliefs, norms, practices about Turkish Sign Language and deaf issues, their specific effects and prevalence were highlighted. | By laying out mothers' experiences of medical procedures, including diagnoses, hearing tests, hearing aids, and cochlear implantation in settings such as hospitals, rehabilitation services, and schools, this thesis aims to examine how mothers make sense of disability in their encounters with medical and rehabilitative experts, school teachers, doctors and family members. | This study found that the hearing-impaired cannot get adequate health care due to communication problems, they cannot have suitable and sufficient education and thus have problems in reading and writing as well as in communication, they have adaptation problems in business settings and systems required in the business life, they cannot have a complete understanding of their legal rights, and they live a life of their own in the social sphere. | This study investigates the effect of the social media use of hearing- impaired individuals on their socialization process. When the attitudes, goals and the most used social media tools of participants' and other findings are analyzed, social media was found to play a significant role in the communication and interaction of hearing- impaired individuals in society. |
| University / Institute | Istanbul University / Institute of Social Sciences | Cumhuriyet University / Graduate School of Health Sciences | Koç University / Institute of Social Sciences | Cumhuriyet University / Institute of Social Sciences | Yalova University / Institute of Social Sciences |
| Thesis Title: | The Adaptation of Hearing-impaired Children to Social Life | Social Analysis of Deaf Sports in Turkey | Rethinking Disability And Motherhood: The experiences of mothers' of deaf children | Social admission problems of hearing-impaired individuals (Sivas Sample) | Social media as a socialization channel in hearing- impaired individuals |
| Author | İrfan Gülsu | Pınar Yaprak Kemaloğlu | İzem Aral | Fatmanur ALSANCAK | Abdulkadir Sonaƙalan |

Table 6. Theses in Sociology and Social Work Field

The rate of the graduate theses on hearing-impaired and deaf community conducted in sociology and social work fields is relatively low (1.5 and 0.5 per cent, respectively) among other fields in social sciences. In addition, only one graduate thesis was found in the anthropology field: the master thesis of Hatice Müküs entitled "Social anthropological analysis of the tools and institutions that allow the inclusion of deaf individuals in the culture" published in 2019.

| Receiving aid | Author | Title | Content | Year | Thesis Type |
|---------------------------------|----------------------------|--|---|------|----------------|
| | Gizem Çoraplı | An application on promotional activities for the hearing-impaired consumers | This study investigated how the promotional activities of the businesses reach the hearing-impaired people, who are disadvantaged consumers, as well as the effectiveness of these activities. It was observed that the adequate holding activities for hearing-impaired people vary. | 2019 | MD |
| Dusiness | Sedanur Savcı Sulhan | Parent Satisfaction in the Deaf Elementary School: Ankara Province Example | This study was conducted to measure parents' level of satisfaction in primary schools with hearing impairments under the Ministry of National Education in Ankara. | 2019 | MD |
| | Şeref İzgü | Music Education in the Primary School Curriculum for Hearing-impaired Children | This study analyzed song education, musical instrument education, music listening training applications according to the characteristics of hearing- impaired children. | 1993 | MD |
| Music | Nilhan Erten | The pragmatic use of music in the [re]habilitation for children with cochlear implants | This study examines the methods and preliminary results of utilizing music to rehabilitate children with cochlear implants. All children showed appreciable progress in understanding music, at least some components of music. | 2010 | MD |
| Fine Arts | Nevin Engin | A critical investigation into the teaching of visual arts to unhearing children | This study suggested that the visual education of the hearing-impaired children should be given importance, all the subjects included in the curriculum should be taught with the children's characteristics kept in mind; suitable environments (classrooms) should be designed for higher quality art education. | 2005 | MD |
| | Tamer Derican | An examination of job application portfolio development process with hearing-impaired youths: An action research | The portfolio development process of 10 hearing-impaired students within the scope of Portfolio Development I and Portfolio Development II courses and who were attending the Graphic Arts Department of the School for the Handicapped at Anadolu University were investigated systematically. | 2010 | MD |
| Translation and Interpreting | Alev Abacı | Descriptive Research on the Subtitle Translation for the Hearing-impaired People | This study explores the practice of subtitling for the deaf and hard of hearing as an Audiovisual Translation modality and put forward the subtitling strategies by scrutinizing the studies carried out across the world. | 2018 | MD |
| Architecture | Zakarıyya Uzeyırlı | An acoustic investigation of the inclusive classrooms of hearing-impaired individuals and a case study | The study aims to determine the acoustic comfort conditions of the inclusive education places used by hearing-impaired individuals and to test these conditions in terms of speech intelligibility through a field study. | 2019 | MD |

Table 7. Thesis in Other Fields

Table 7 presents findings related to the graduate theses in business, music, fine arts, translation and interpreting, and architecture fields. The fact that the number of theses in each of these fields was relatively low has led the researcher to present all the theses in this group in a single table. The limited number of graduate theses on the hearing-impaired and deaf community in these fields is striking.

Theses Conducted in Engineering Sciences and Natural Sciences

Fourteen graduate theses on hearing-impaired and deaf people were found in engineering sciences and natural sciences. Their distribution according to the scientific fields is presented in Table 8.

| Field | Thesis Type | Thesis Number (N) | % |
|---|-----------------|----------------------|------|
| | Master's Degree | 10 | |
| Computer Engineering | PhD degree | 1 | 57.4 |
| | Total | 11 | |
| | Master's Degree | 1 | |
| Electrical and Electronics Engineering | PhD degree | - | 14.2 |
| | Total | 1 | |
| | Master's Degree | 1 | |
| Biochemistry | PhD degree | - | 14.2 |
| | Total | 1 | |
| | Master's Degree | 1 | |
| Industrial Design | PhD degree | - | 14.2 |
| | Total | 1 | |
| Grand Total | | 14 | 100 |

 Table 8. Distribution of Theses Conducted in Engineering Sciences and Natural

 Sciences

The rate of graduate theses conducted in engineering sciences and natural sciences is low (5.2%) among 265 theses in hearing-impaired and deaf literature. There are 14 graduate theses, 12 of which were completed in the Institute of Science, and 11 of which were carried out in the Computer Engineering field. The majority of the work aims to facilitate the lives of hearing-impaired people to create a digital product.

Only one of these studies is a doctoral dissertation: the doctoral dissertation of Özer Çelik entitled "An artificial intelligence-based remote communication system for hearing-impaired", published in 2019. The first graduate thesis on hearing-impaired and deaf people in Turkey is the medical speciality thesis of Ruşen Okuyaz entitled "Urinary Hydroxylochrolin in Deaf and Mute People and Its Relationship with Other Chemical Compounds", published in 1978.

Theses Studies in Health Sciences

Forty-eight graduate theses on hearing-impaired and deaf people were found to be conducted in health sciences. Figure 9 presents the distribution of these theses according to their type.

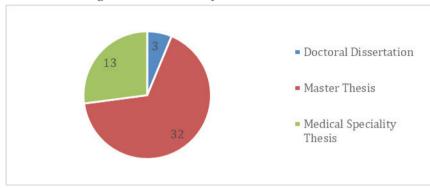


Figure 9. Distribution of theses in health sciences

It can be observed that the majority (66.6%, n=48) of theses conducted in health sciences on hearing-impaired and deaf individuals is master theses; only 3 of them are doctoral dissertations. The number of doctoral dissertations in various scientific fields is relatively low.

| Field | Thesis Type | Thesis Number (N) | % | |
|-----------------------|--|-------------------|------|--|
| Otorhinolaryngology / | Master Thesis / Medical Speciality Thesis | 19 | 20.5 | |
| Audiology | PhD degree | - | 39.5 | |
| | Total | 19 | | |
| N T . | Master Thesis / Medical Speciality Thesis | 7 | 14.5 | |
| Nursing | PhD degree | - | 14.5 | |
| | Total | 7 | | |
| Paediatrics | Master Thesis / Medical Speciality Thesis | 5 | - 11 | |
| | PhD degree | - | | |
| | Total | 5 | | |
| Pediatric | Master Thesis / Medical Speciality Thesis | 3 | | |
| Development | PhD degree | 1 | 9 | |
| | Total | 4 |] | |

Table 10. Distribution of theses in health sciences

| Grand Total | | 48 | 100 |
|----------------------------------|--|----|--------------|
| | Total | 1 | |
| Family Practice | PhD degree | - | 2 |
| | Master Thesis / Medical Speciality Thesis | 1 | |
| | Total | 1 | |
| Health Education | | - | |
| | Thesis PhD degree | - | 2 |
| | Master Thesis / Medical Speciality | 1 | |
| | Total | 1 | |
| Nutrition and Dietetics | PhD degree | - | 2 |
| Nutrition and Dist-ti | Master Thesis / Medical Speciality Thesis | 1 | 2 |
| | Total | 1 | |
| rearoney | PhD degree | - | ² |
| Neurology | Master Thesis / Medical Speciality Thesis | 1 | 2 |
| | Total | 1 | |
| · · · | PhD degree | - | |
| Eye Diseases | Thesis | - | 2 |
| | Master Thesis / Medical Speciality | 1 | |
| Physiology | Total | 1 | |
| | PhD degree | - | ² |
| | Thesis | 1 | 2 |
| | Master Thesis / Medical Speciality | 1 | |
| | Total | 1 | |
| Aid | PhD degree | - | 2 |
| Emergency and First | Thesis | 1 | 2 |
| | Master Thesis / Medical Speciality | 1 | |
| | Total | 1 | |
| Rehabilitation | PhD degree | - | 2 |
| Physical Medicine and | Thesis | 1 | |
| | Master Thesis / Medical Speciality | | |
| | Total | 1 | |
| Cardiology | PhD degree | - | 2 |
| | Thesis | 1 | |
| | Master Thesis / Medical Speciality | | |
| Wedicille | Total | 2 | |
| Genetics / Molecular Medicine | Thesis PhD degree | - | |
| | Master Thesis / Medical Speciality | 2 | |
| | Total | 2 | |
| Rehabilitation | PhD degree | 2 | · |
| Physiotherapy and | Thesis | | 4 |

The majority of theses on hearing-impaired and deaf individuals conducted in health sciences are observed in otorhinolaryngology and audiology fields, nursing, child development, and health fields. Four graduate theses on hearing-impaired people conducted in the child development department are completed in Hacettepe University Institute of Health Sciences.

Discussion

Two hundred three theses were reached in social, human and administrative sciences, 14 in natural and engineering sciences and 48 in health sciences. It was observed that between 1978-2020, there is a regular trend of increase in the number of graduate theses on hearing-impaired and deaf people. They were more frequently selected as research topic between 2015-2020, with 81 theses conducted during this period. The number of current graduate theses on hearing-impaired and deaf people is also on the increase. The increase is an essential point for the proliferation of academic studies on the deaf community and the establishment of the related literature to reflect the scientific studies on the lives of the deaf community.

Master theses in social sciences constitute the majority of graduate theses on hearing-impaired and deaf people in Turkey. This fact can be associated with the awareness-raising about the problems of the deaf community in the public sphere, particularly the education system. Scientific studies have gained momentum with increasing the visibility of the civilian organization of deaf and hearing-impaired people. This difference between master theses and doctoral dissertations is expected as the number of master programs is higher than the doctoral programs. Thus the number of students graduating with a masters degree is higher than PhD students.

The theses conducted in the education sciences field constitute most graduate theses on hearing-impaired and deaf people in social and administrative sciences. The studies focusing on the education of hearing-impaired people are primarily conducted in special education, music, psychological counselling and guidance. After education sciences, the highest number of theses were conducted in sports sciences.

Master theses constitute the majority of 128 studies (80%) on hearing-impaired and deaf people in education sciences. It was found that theses on hearing-impaired and deaf people in education sciences are particularly special education-oriented studies. These studies, formed around the education of the hearing-impaired children and their families, can be said to have increased in numbers after 2015.

It is observed that the educational studies on hearing-impaired people first started in Eskisehir Province, and Anatolian University has been the pioneer in this matter. The first graduate theses were conducted at the Institute of Social Sciences at Anadolu University and focused on the education of hearing-impaired people with special teaching methods. The majority of these theses have been conducted in the Department of Special Education. The fact that hearing-impaired people are taken as the subject of academic studies in the education field since 2000 can be associated with increased visibility of hearing-impaired children.

The first of theses conducted in psychology is the master thesis of Hayal Uğurlu entitled "Investigation of the Effect of Integration on the Psychosocial Development of Hearing-impaired Children in 8-11 Age Group", published in 1987. This study focuses on the integrated education of hearing-impaired children with their peers to support their psychosocial development and disseminate this integration to all schools. The only doctoral dissertation in this field was prepared by Z. Hale Ergenç. The dissertation was entitled "The Development of Simultaneous and Successive Memories in Hearing-impaired Children and Effect on Their Education" and completed in İstanbul University Institute of Social Sciences. This study found that hearing-impaired children's learning difficulties are associated with neurophysiological developmental disabilities. Suitable and sufficient education is not provided for the hearing-impaired children and their families. The study suggested that education programs and methods should be guided, taking the individual differences into account. The majority of the theses conducted in psychology focuses on children. In addition, no graduate thesis on hearing-impaired or deaf people was found in the psychology field between 1992-2001. The absence of any thesis in this field for nine years is striking.

The first of theses conducted in the Home Economics is the master thesis of Şenay Pektaş entitled "The Investigation of Recipient and Expressive Language Oriented Verbal Expressions of Hearing-impaired Children in 6-8 age group and the Comparision with the Normal Hearing Peers" published in 1993. The last of the theses in this field is the master thesis of Rafet Fırat Şipal entitled "A study on the level of social adjustment of 7-11 years old hearing-impaired and normally hearing children", published in 2002. Both studies were conducted at Hacettepe University Institute of Health Sciences. A lack of graduate theses on hearing-impaired and deaf individuals since 2002 can be seen in this field. These studies found that hearing-impaired children are at a lower level than children who normally hear in terms of activity, sociability, school achievement, anxiety and criminal behaviour.

The number of graduate theses, especially in business, music, fine arts, translation studies and architecture, is relatively low. The limited number of graduate theses on the hearing-impaired and deaf community in these fields is striking. The number of theses on the hearing-impaired and deaf community in anthropology, architecture, translation, and interpreting dis-

ciplines seems to be quite a few. Considering that the deaf community is cultural, the lack of theses in sociological and anthropological fields was noticed. In addition, sign language is the communication language of the deaf community and is the research area of translation studies. The current study found a gap in the studies in this research area.

The graduate theses in engineering sciences and natural sciences were primarily conducted in the computer engineering field. The majority of the studies in Computer Engineering aims to facilitate the lives of hearing-impaired people with the products they create. The dissemination of innovative technology uses technological tools and materials used by hearing-impaired people, especially assistive listening devices, telecommunications devices, speech to text conversion devices, warning devices, and similar devices. These studies also include software technologies to support the speech and language acquisition development of hearing-impaired individuals. In this field, there is only one doctoral dissertation prepared by Özer Çelik entitled "An artificial intelligence-based remote communication system for hearing-impaired", published in 2019. A system translating the entered text momentarily into sign language with the help of a 3-D virtual assistant and translating the sign language movements of the hearing-impaired by two different methods was developed in the study. The study offers significant contributions for future solutions that will facilitate remote communication of hearing-impaired people.

The majority of theses on hearing-impaired and deaf individuals conducted in health sciences are observed in otorhinoyngology and audiology fields, nursing, child development, and health fields. Four graduate theses on hearing-impaired people conducted in the child development department are completed in Hacettepe University Institute of Health Sciences. These theses proposed conducting studies on hearing aid effectiveness on language development, hearing rehabilitation, and family consultancy. In addition, they highlighted the effects and efficiency of integration programs on hearing-impaired groups, early diagnosis in terms of development, integrative rehabilitation practices and the interaction of hearing-impaired children with normal hearing children in the pre-school period.

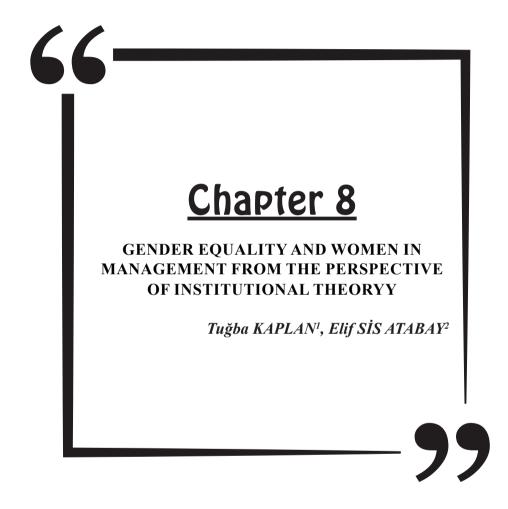
Finally, the present study points out the need to conduct cultural and sociological studies on deaf community and Turkish sign language, especially in social sciences. It was observed that the epistemological accumulation related to the components of the deaf community in Turkey, the characteristics (whatness) of the deaf identity, cultural characteristics, Turkish sign language studies and the discrimination towards hearing-impaired and deaf people. The dissemination of scientific studies, particularly in social sciences, is recommended.

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Introduction

After the call for Sustainable Development Goals of the United Nations at the Sustainable Development Summit, the issue of gender equality attracts increased attention from scholars and policymakers. Formal institutions in some countries such as France and Norway have mandatory quotas to increase the representation of women in management. In some other countries like the United States and Türkiye quotas are not mandated by formal institutions (Arioglu, 2020). Despite these regulations of formal institutions women have failed to achieve equal representation in senior-middle management and boards of director levels in today's world (Terjesen et al., 2015).

The discussions about the contributions of women in management continue in the academy and business world. The number of women employees (Demir, 2021) and managers (Arioglu, 2020) going to increase recently but the benefits of this rise are not clear yet. Moreover, women have to struggle with various obstacles in their managerial process (Demir, 2021). Coşkun (2021) defines these obstacles in women's career journeys with a metaphorical outlook. "Glass ceiling", "concrete ceiling", "glass escalator", "leaky pipeline", "glass wall", "sticky floor", "glass door", "queen bee syndrome" and "glass cliff" are nine metaphors that are used to explain the obstacles in women's career journeys. For instance, the concrete ceiling is a metaphor used to highlight the coexistence of sexist and racist barriers to career advancement for women employees and the double discrimination women face as they progress through the organizational hierarchy. Additionally, the metaphor of a leaky pipe refers to the situation of women employees who leave or have to leave organizational life, such as water leaking from a perforated pipe (Coskun, 2021).

In the context of Türkiye, the gender equality report in 2018, Türkiye ranked 130th of the 149 countries listed. Women's participation in management and decision-making processes is a fundamental aspect of democracy. However, gender discrimination is still an important problem in Türkiye (Öztürk & Şimşek, 2019). There are many reasons for this gender discrimination problem. Since some duties such as taking care of children, cleaning the house, and cooking are assigned to women, it is more difficult for women to get rid of these duties and focus on business life than men. On the other hand, one of the problems that should be mentioned as one of the obstacles faced by women in business life is mobbing. Men-oriented organizational cultures pose a significant obstacle to women's career paths. For instance, there are informal business relations called "old boy networks" that men establish among themselves. Women have difficulty entering these networks and therefore they are deprived of information, support, advice, power, and privileges (Karatepe & Arıbaş, 2015). A few studies already exist that examine gender equality in workplaces in Türkiye with a cross-country comparison from the institutional theory perspective. This study aims to investigate the participation of women at the senior-middle management level and the board of director level for the last three years with a cross-country comparison. To actualize this aim cluster analysis is chosen to provide a detailed understanding of the similarities of countries and performed with SPPS 26 program. The sample of this study consists of 87 countries, including Türkiye. In this study, three different cluster analyses are done. The first two analyses aim to cluster countries according to two different variables that represent the participation of women in management. To investigate the institutional context of these countries third analysis is performed.

The main contribution of the study is that it investigates the participation of women at the senior-middle management level and the board of director level for the last three years with a cross-country comparison by highlighting the importance of the institutional context. This study also gives recommendations for practitioners by explaining better and worse degree clusters. The study is structured as follows. In the next section, the conceptual framework is given and then the methodology of the study is explained. After the findings and discussion section, the research is concluded with the conclusions and implications part.

Conceptual Framework

Gender Equality

Country leaders, who came together at the Sustainable Development Summit of the United Nations, held in New York on September 25, 2015, accepted the Sustainable Development Goals, which consist of 17 goals and 169 targets to eradicate poverty in all its dimensions and to ensure the common welfare of humanity by 2030. The declared Sustainable Development Goals are a global call to action for ending poverty, protecting the environment, taking measures against the climate crisis, equitable sharing of prosperity, and ensuring peace. The goal is to offer a better and liveable world for humanity and future generations to achieve social, economic, and environmental sustainability everywhere in the world. The fifth goal is to achieve gender equality and empower all women and girls.

The call of the United Nations has played a critical role in the spread of the gender equality concept. Thus, gender equality, which is an important aspect of sustainable development goals, has been taken increased attention by scholars, practitioners, and policymakers recently (Nguyen, 2022; Ruiz et al., 2022). As one of the important goals of sustainable development, gender equality drives the economic and social development of countries by providing access to education, health, labor, and socioeconomic opportunities to all individuals (Ruiz et al., 2022). However, gender inequality is a real problem in the present world (Bader et al., 2022).

Gender equality is an emphasized topic in the previous literature and generally focused on employment, health, education, and rights (Nguyen, 2022). According to Alhejji et al. (2018), the expansion of multinational firms with globalization might cause this increased attention by scholars. Many multinational firms apply gender diversity management strategies to improve gender equality by reducing gender inequities and supporting women in the firm (Bader et al., 2022). Cortis et al. (2022) suggested that women senior leaders can play a role as change agents by decreasing gender inequalities and increasing gender equality. In the line with these studies, the participation of women in senior-middle management and the board of director levels are investigated and explained below in this study.

Women in Management

The participation of women in management provides more diversified, innovative, and broader firm structures (Ruiz et al., 2022). However, women have to struggle with many challenges to take place in higher managerial positions (Maheshwari & Nayak, 2022; Taser-Erdogan, 2022). Some of the reasons for these challenges are the traditional social roles of women, the perception of insufficient leadership abilities of women, and the motherhood penalty (Bader et al., 2022). In addition, the glass ceiling, informal networks, gender-based stereotypes, long-hours working culture, gendered perceptions of performance and promotability, and limited provision of work-life balance policies such as career breaks, flexible working, and childcare support are other challenges that women have to struggle (Tatli et al., 2017). To address these challenges, formal institutions implement gender quotas and comply-or-explain protocols in most European countries and some states in the United States (Afzali et al., 2022). In the context of Türkiye, there are comply-or-explain protocols for the listed companies in Borsa Istanbul (Öcal, 2022).

Another difficulty is the glass cliff that provides evidence about women's preferentially selection to contest hard-to-win seats as manager or leader. When formal institutions implement gender quotas to increase the number of women managers in some cases, the glass cliff will be more common than the glass ceiling. According to the glass cliff view, the appointment of women as leaders in more risky situations than men, where the probability of failure is higher. Accordingly, man executive candidates are preferred as managers in companies that are on the rise economically, while women executive candidates are selected as managers in companies whose economic situation is in decline (Akbaş & Korkmaz, 2017). Despite all the obstacles, it is claimed that women directors have positive effects on firms in some ways. For instance, some scholars suggest that the presence of women compared to men has a positive effect on CSR ratings, reporting, and performance (Valls Martínez et al., 2022). Women directors also have experience in non-profit and community-based organizations more than men. They generally have doctorates or degrees more than men. Women directors are more likely to help to assess the needs of stakeholders and support other women's participation in management (De Celis et al., 2015).

In the literature, some studies emphasize the importance of institutions on both gender equality (Alhejji et al., 2018; Bader et al., 2022; Segovia-Pérez et al., 2018; Styhre, 2014) and women in management (Afzali et al., 2022; Kemp et al., 2015). For instance, Segovia-Pérez et al. (2018) investigated women in decision-making positions in three levels which are individual, interactional, and institutional levels. In addition, Fleischer (2022) analyzed gender diversity in the board of management and the effect of gender quota legislation, focusing on the case of Germany. Afzali et al. (2022) underlined the presence of female board directors through the effect of institutions. Like some other studies (Afzali et al., 2022; Alhejji et al., 2018; Bader et al., 2022) institutional theory is examined from North's (1990) institutional view and explained below in this study.

Institutional Theory

The evidence of the institutions' key role in the economies is provided by scholars of institutional economics (Schüler-Zhou & Schüller, 2009). According to North (1990), these institutions determine the rules of the game that firms played. Institutions facilitate economic interaction and development by reducing uncertainties due to the stable and convenient structure they create (Young et al., 2014). In other words, they both affect firms' strategies, priorities, opportunities, and the dynamics of the sector (Zahra et al., 2018). As important players in economies, institutions consist of formal and informal institutions.

Formal and informal institutions can facilitate as well as constrain firms. These constraints include formal constraints such as laws, rules, and constitutions, and informal constraints such as conventions and norms (Schüler-Zhou & Schüller, 2009). Formal institutions contain the state, legal system, education system, political system, democracy, property rights, and corruption. Informal institutions consist of sub-elements such as culture, trust, beliefs, and individuals' decision-making mechanisms. Formal institutions are easier to identify and measure than informal institutions. In other words, it is more difficult to identify and measure informal institutions (North, 1990: 51-73). In this study, formal

institutions are taken into account and explained by the governance indicators below.

Government Effectiveness

The effectiveness of the government in a country is generally determined by various factors such as quality of bureaucracy, institutional efficiency, quality of road/rail/air/sea infrastructures, quality of basic education, public schools, water/electricity/telecommunication infrastructures, health services and satisfaction with all these elements. (Kaufmann et al., 1999). The effectiveness of the government is expressed as the ability of the local government to determine and implement incentive policies and regulations for business development (Zhang et al., 2017). The effectiveness of the government is accepted as an indicator of the government's capacity to implement sound policies. In developing countries where the government's effectiveness is low and there is institutional weakness, businesses may have to act to connect with governments (Chari and Acikgoz, 2016). The effectiveness of the government is defined as the adequacy of the bureaucracy and the quality of public service delivery (Choi and Yeniyurt, 2015). It is argued that one of the key elements to be able to talk about a strong institutional environment is the efficiency of the government (Williams & Martinez, 2012).

Political Stability and Absence of Violence/Terrorism

Political stability and absence of violence/terrorism are generally examined through factors such as violent activities of underground political organizations, the intensity of conflicts and government stability, regular transfers, international tensions, terrorist threats, violent demonstrations, social unrest, armed conflict, the scale of political terrorism, security risk rating, the intensity of ethnic, religious or regional internal conflicts (Kaufmann et al. 1999).

Control of Corruption

Various elements used to investigate the control of corruption are known as corruption among public officials, public trust in politicians, diversion of public funds, as well as irregular payments in public services, judicial decisions, tax collection, exports and imports, and public contracts (Kaufmann et al., 1999). Corruption can be mentioned if governments fail to apply the necessary rules in economic relations correctly (Cuervo-Cazurra & Genç, 2008).

Rule of Law

Trust in the judicial system, trust in the police force, violent crime, organized crime, reliability of police services, independence of the judi-

ciary, fairness and speed of the judicial process, protection of intellectual property rights, the enforceability of contracts, confiscation/expropriation, protection of private property, and the effectiveness of the legal framework in coercive regulation are accepted as arguments showing the rule of law in a country (Kaufmann et al., 1999). In countries where the rule of law is strong, stronger political and legal institutions provide more effective punishment for those who violate the rules and make it easier for firms to increase their reputation (Stevens & Makarius, 2015).

Regulatory Quality

Regulatory quality is examined through factors such as unfair competition practices, price controls, the burden of government regulations, excessive protections, discriminatory taxes, discriminatory tariffs, the prevalence of non-tariff barriers, the extent of market dominance, investment freedom, financial freedom (Kaufmann et al., 1999). Although firms are afraid of regulatory rules as these rules may restrict them, managers are more concerned with the quality of these rules that can provide ease of doing business for businesses (Cuervo-Cazurra and Genç, 2008). For instance, insufficient regulatory quality in a country indicates the existence of a weak institutional environment for firms in that country (Doh et al., 2017).

Voice and Accountability

Voice and accountability are defined by factors such as the accountability of public officials, democracy index, civil liberties, personal interests, human rights, internet freedom, freedom of association, political rights, confidence in the honesty of elections, freedom of election, compliance of representative institutions with official rules, freedom of association, freedom of the press, freedom of assembly and demonstration, respect for ethnic, religious, linguistic and immigrants' or minorities' rights and freedoms (Kaufmann et al., 1999).

Methodology

The participation of women in management in the world is researched in this study. This study aims to investigate the participation of women at the senior-middle management level and the board of director level for the last three years with a cross-country comparison from the perspective of institutional theory. To actualize this aim cluster analysis was chosen to provide a detailed understanding of the similarities of countries and performed with SPPS 26 program. The sample of this study consists of 87 countries, including Türkiye. The list of the countries within the scope of the research is given in Table 1. Table 1 Research Sample – The List of Countries

Countries

Argentina, Australia, Austria, Belarus, Belgium, Bermuda, Bolivia, Bosnia and Herzegovina, Brazil, Brunei Darussalam, Bulgaria, Canada, Chile, China, Colombia, Costa Rica, Croatia, Cyprus, Czechia, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Estonia, Finland, France, Georgia, Germany, Greece, Honduras, Hong Kong, Hungary, Iceland, India, Indonesia, Iran, Ireland, Isle of Man, Israel, Italy, Japan, Jordan, Kosovo, Kyrgyz Republic, Latvia, Lithuania, Luxembourg, Macau, Malaysia, Malta, Mexico, Mongolia, Montenegro, Myanmar, Netherlands, New Zealand, North Macedonia, Norway, Pakistan, Papua New Guinea, Peru, Philippines, Poland, Portugal, Qatar, Romania, Russia, Saudi Arabia, Serbia, Singapore, Slovak Republic, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Türkiye, United Arab Emirates, United Kingdom, United States, Uruguay, West Bank-Gaza, Zambia

Cluster analysis, which is a useful tool for comparing different countries and grouping them, has been previously used by many studies (Çelik, 2022; Orman, 2021; Şen & Varürer, 2019; Yalçıner Çal et al., 2022). Cluster analysis classifies similar data or variables based on preferred critics and uses distance, correlation, and similarity measures. This analysis aims to separate two or more groups according to their similarities. There are some steps in the decision process of cluster analysis such as using hierarchical methods, choosing cluster numbers by cluster tree diagrams, and finding final clusters (Everitt et al., 2011).

In this study, three different cluster analyses were done. The first two analyses aimed to cluster countries according to two different variables that represent the participation of women in management. The purpose of the third analysis was to investigate the institutional context of these countries. To compare the recent situation of the participation of women in management from the institutional theory perspective of cross-countries last three years were analyzed.

The participation of women in management was measured by two variables; the senior-middle management level (De Celis et al., 2015) and the board of director level (Afzali et al., 2022; Fleischer, 2022). Therefore, two different cluster analyses were performed in this study. For the first cluster analysis, 2018 to 2020 data about senior-middle women managers from 62 countries were taken into account. For the second cluster analysis, 2019 to 2021 data about women directors from 55 countries were used. Senior and middle-women managers' data were not available in 2021 for many countries, so the last year of this data was chosen as 2020.

The details of the research variables used in cluster analysis are given in Table 2 below (ILOSTAT, 2022; MSCI ESG Research, 2021; Worldbank, 2022). One of the models that can be used for cluster analysis is the hierarchical model. In hierarchical methods, there are cluster tree diagrams that are called dendrograms (Çelik, 2022). In this study, once hierarchical cluster analysis was performed to estimate the correct number of clusters, and then the K-means cluster analysis was done to develop the final cluster solution by Ward's method (Hair et al., 1998). Ward's method or known as the minimum sum of squares, define the distance between clusters as the increase in the sum of squares within clusters, after fusion, summed over all variables (Everitt et al., 2011:79). We ran the hierarchical Ward's method which is particularly useful in studying small amounts of data and it gives more accurate results in clustering (Çelik, 2022).

| Table 2 |
|---------|
|---------|

| | Research variables | |
|-----------------------|---|-----------------------|
| Variables | Data Explanation | Data Source |
| Senior-Middle Women | The proportion of women in total employment | International Labour |
| Managers | in senior and middle management - Percentage | Organization ILOSTAT |
| Women Directors | The ratio of total director seats held by women | MSCI ESG Research, |
| women Directors | - Percentage | November 2021 |
| | Control of Corruption, Government | |
| Institutional Context | Effectiveness, Political Stability and Absence | Wordbank, World |
| | of Violence/Terrorism, Regulatory Quality, | Governance Indicators |
| | Rule of Law, Voice and Accountability - score | Data |
| | ranging from -2.5 to 2.5 | |

| Research | Variables |
|----------|-----------|
| | |

In addition to cluster analyses, in the context of emerging countries, the situation of Türkiye was investigated in this study. To determine the development of Türkiye on women's participation in management, senior-middle women managers, and women directors last five years data were taken. Lastly, the data of Türkiye and the world were compared and illustrated by figures.

Findings and Discussion

A descriptive illustration of senior-middle women managers and women directors' is given in Figure 1 below. The 2020-year data was chosen to compare the situation in the world, because of the insufficient data in 2021 year. Senior-middle women managers' ratio that is on the left side of the figure has values between 5.90 and 62.10. On the other hand, the percentage of women directors that are on the right side of the figure ranges from 2.10 to 44.80.

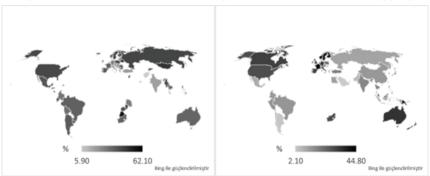
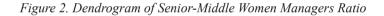


Figure 1. Senior-Middle Women Managers and Women Directors Mapping

The results of the first hierarchical cluster analysis of seniormiddle women managers are given in Figure 2 and women directors are given in Figure 3 below. According to Figure 2, there are five groups of countries based on the senior-middle women managers ratio and according to Figure 3, there are four groups of countries based on the percentage of women directors.



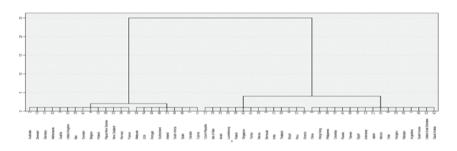
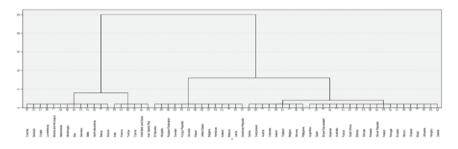


Figure 3. Dendrogram Percentage of Women Directors



After hierarchical cluster analysis, K-means cluster analysis was performed as five groups for senior-middle women managers and four groups for women directors by Ward's method. The groupings of the countries based on the senior-middle women managers' ratio are given in Table 3 below. As can be seen from Table 3, in cluster analysis of the senior-middle women managers' ratio, five cluster centers are ranked as fourth, first, third, fifth, and second in 2018; fourth, first, third, fifth, and second in 2019 and 2020. When it comes to Türkiye, it is in the last ranked cluster (fifth cluster) of senior-middle women managers ratio with India, Iran, Kosovo, and West Bank-Gaza.

| Clusters | Countries - | Cluster Centers | | |
|----------|---|-----------------|-------|-------|
| Clusters | Countries | 2018 | 2019 | 2020 |
| 1 | Bulgaria, El Salvador, Kyrgyz Republic, Mongolia, Poland, Russian Federation, Slovenia, Sweden, United States | 38.41 | 41.40 | 43.52 |
| 2 | India, Iran, Kosovo, Türkiye, West Bank- Gaza | 17.38 | 17.62 | 19.14 |
| 3 | Argentina, Australia, Belgium, Brazil, Brunei Darussalam, Ecuador, Estonia, Finland, France, Georgia, Hungary, Ireland, Lithuania, Mexico, Myanmar, Norway, Portugal, Romania, Serbia, Slovak Republic, South Africa, Spain, Switzerland, Thailand, Uruguay, Zambia | 33.84 | 34.32 | 35.85 |
| 4 | Belarus, Dominican Republic, Honduras, Iceland, Latvia | 44.72 | 46.28 | 43.98 |
| 5 | Austria, Bolivia, Bosnia and Herzegovina, Colombia, Croatia, Cyprus, Czechia, Denmark, Germany, Greece, Italy, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Philippines | 26.42 | 27.46 | 27.58 |

 Table 3

 Cluster Analysis Results of Senior and Middle Women Managers

The clusters and the groupings of countries based on the percentage of women directors are given in Table 4 below. As can be seen from Table 4, in the second cluster analysis of the percentage of women directors, four cluster centers are ranked as fourth, second, third, and first in 2019, 2020, and 2021. In the context of Türkiye, it is in the third-ranked cluster of the percentage of women directors with Bermuda, Brazil, China, Colombia, Czechia, Greece, Hong Kong, India, Isle of Man, Macau, Peru, Philippines, Poland, Singapore, and Thailand.

| Clusters | Countries | Cl | uster Cent | ers |
|----------|---|-------|------------|-------|
| Clusters | | 2019 | 2020 | 2021 |
| 1 | Argentina, Chile, Egypt, Hungary, Indonesia, Japan, Mexico, Pakistan, Russia, Saudi Arabia, South Korea, Taiwan, United Arab Emirates | 0.70 | 2.10 | 2.20 |
| 2 | Australia, Austria, Canada, Cyprus, Denmark, Germany, Ireland, Israel, Luxembourg, Malaysia, Netherlands, Portugal, South Africa, Spain, Switzerland, United Kingdom, United States | 26.20 | 31.20 | 34.10 |
| 3 | Bermuda, Brazil, China, Colombia, Czechia, Greece, Hong Kong, India, Isle of Man, Macau, Peru, Philippines, Poland, Singapore, Thailand, Türkiye | 13.80 | 17.60 | 18.90 |
| 4 | Belgium, Finland, France, Italy, New Zealand, Norway, Papua New Guinea, Sweden | 44.30 | 44.80 | 45.30 |

Table 4Cluster Analysis Results of Women Directors

The results of the first hierarchical cluster analysis of world governance indicators are given in Figure 4 below. According to Figure 4, there are five groups of countries based on world governance indicators (control of corruption, government effectiveness, political stability and absence of violence/terrorism, regulatory quality, rule of law, voice and accountability).

Figure 4. Dendrogram of World Governance Indicators

After hierarchical cluster analysis, K-means cluster analysis was performed as five groups for world governance indicators by Ward's method. The clusters and the groupings of countries based on world governance indicators are given in Table 5 below. As can be seen from Table 5, in the first cluster analysis of world governance indicators, five cluster centers are ranked as fifth, second, fourth, third, and first in 2018, 2019, and 2020. When it comes to Türkiye, it is in the fourth-ranked cluster (third cluster) of world governance indicators with Argentina, Belarus, Brazil, Bulgaria, China, Colombia, Croatia, Ecuador, El Salvador, Greece, Hungary, India, Indonesia, Jordan, Kosovo, Mongolia, Montenegro, North Macedonia, Peru, Philippines, Romania, Serbia, South Africa, Thailand, and West Bank-Gaza.

| Clusters | Countries - | Cl | uster Cente | ers |
|----------|---|-------|-------------|-------|
| Clusters | Countries | 2019 | 2019 | 2019 |
| 1 | Bolivia, Bosnia and Herzegovina, Dominican Republic, Egypt, Honduras, Iran, Kyrgyz Republic, Mexico, Myanmar, Pakistan, Papua New Guinea, Russian | -0.81 | -0.83 | -0.87 |
| | Federation, Zambia | | | |
| 2 | Australia, Austria, Belgium, Brunei Darussalam, Canada, Chile, Estonia, France, Hong Kong, Iceland, Ireland, Japan, Taiwan, United Arab Emirates, United Kingdom, United States, Uruguay | 1.41 | 1.43 | 1.45 |
| 3 | Argentina, Belarus, Brazil, Bulgaria, China, Colombia, Croatia, Ecuador, El Salvador, Greece, Hungary, India, Indonesia, Jordan, Kosovo, Mongolia, Montenegro, North Macedonia, Peru, Philippines, Romania, Serbia, South Africa, Thailand, Türkiye, West Bank- Gaza | -0.26 | -0.26 | -0.29 |
| 4 | Costa Rica, Cyprus, Czechia, Georgia, Israel, Italy, Latvia, Lithuania, Macau, Malaysia, Malta, Poland, Portugal, Qatar, Saudi Arabia, Slovak Republic, Slovenia, Spain | 0.58 | 0.60 | 0.59 |
| 5 | Denmark, Finland, Germany, Luxembourg, Netherlands, New Zealand, Norway, Singapore, Sweden, Switzerland | 2.07 | 2.10 | 2.10 |

Table 5Cluster Analysis Results of World Governance Indicators

It can be seen from the analysis, the clusters that Türkiye included have lower women managers and directors than other countries from Europe. Because of this reason, the distribution of these ratios over the five years is investigated in this study. The ratios of senior-middle women managers in Türkiye and in the world (all the countries in the sample) between the 2016 and 2020 years are given below in Figure 4. As can be seen from Figure 4, Türkiye has lower degrees (from 16.30% to 19.30%) than the world (from 31.95% to 34.48%). Figure 4 also shows that the senior-middle women managers' ratio in the world is increasing since the year 2017. Moreover, the rise of senior-middle women managers' ratio lowers between 2019 and 2020. A possible explanation for this result may be the negative effect of the Covid-19 pandemic. Surprisingly, in Türkiye the rise of the senior-middle women managers' ratio continues between 2019 and 2020. These results are likely to be related to the increase of GDP in Türkiye even during the Covid-19 pandemic period.

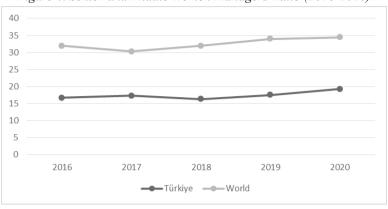
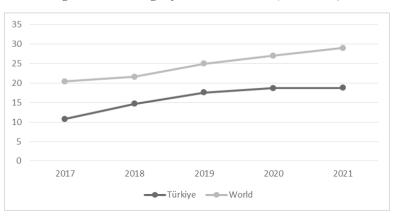


Figure 4. Senior and Middle Women Managers Ratio (2016-2020)

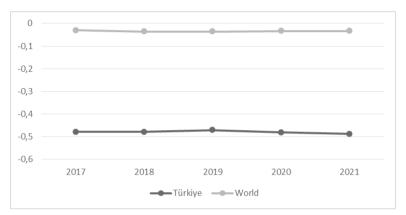
The percentage of women directors in Türkiye and the world between 2017 and 2021 years is given below in Figure 5. As can be seen from the figure, Türkiye has lower degrees (from 11.6% to 18.8%) than the world (from 19.1% to 29.0%). Figure 5 illustrates that the percentage of women directors in the world is increasing since the year 2016. Moreover, the rise of the percentage of women directors has gained momentum since 2018. In the context of Türkiye, the increase in the percentage of women directors has declined over the last three years, especially in 2020 and 2021.

These interesting findings suggest that there is a detailed investigation needed for Türkiye in 2022. So, the 2022-year data on the percentage of women directors are taken from VAP (2022). According to this data, there are 446 women directors in 2021, but there are 522 women directors in 2022 July. These results raise the possibility that the percentage of women directors will be higher than before in Türkiye in the future.





The value of world governance indicators in Türkiye and the world between 2017 and 2021 is given below in Figure 6. As can be seen from the figure, Türkiye has lower degrees (from -0.488 to -0.470) than the world (from 0.036 to 0.029). Figure 6 illustrates that the value of world governance indicators has had a straight line last five years and it has been increasing after the year of 2019. However, in the context of Türkiye, there have been more fluctuations in the last five years than in the world, and interestingly the value of governance indicators has been decreasing since 2019.





Conclusions and Implications

This study investigates the participation of women at the senior-middle management level and the board of director level for the last three years with a cross-country comparison from the perspective of institutional theory. The sample of this study consists of 87 countries including Türkiye. Cluster analysis was chosen to provide a detailed understanding of the similarities between these countries (Orman, 2021; Yalçıner Çal et al., 2022). In this study, three different cluster analyses were done. The first two analyses aimed to cluster countries according to two different variables, which represent the participation of women in management, consisting of senior-middle management level (De Celis et al., 2015) and the board of director level (Afzali et al., 2022; Fleischer, 2022). To investigate the institutional context of these countries third cluster analysis was performed.

De Celis et al. (2015) suggest that the participation of women at the senior-middle management level affects the development of gendered social responsibility activities in firms. According to our results of cluster analysis of the women managers ratio, Türkiye is in the last ranked cluster with India, Iran, Kosovo, and West Bank-Gaza. These disappointing results of the senior-middle women managers ratio claim that Türkiye is far from achieving gender equality at the senior-middle management level in firms (De Celis et al., 2015). When it comes to the trend of senior-middle women managers ratio for the last five years, Türkiye is found below the world average but this trend is increasing trend even during the Covid-19 pandemic period. These results are likely to be related to the increase of GDP in Türkiye while there has been a decrease in GDP in many countries during the Covid-19 pandemic period.

Our results of the percentage of women directors' cluster analysis showed that Türkiye is found in the penultimate ranked cluster with Bermuda, Brazil, China, Colombia, Czechia, Greece, Hong Kong, India, Isle of Man, Macau, Peru, Philippines, Poland, Singapore, Thailand. This result supports the study of Tatli et al. (2017) about female managers in China. Like in Türkiye, in China, gender inequality is a major issue that female managers have to face (Tatli et al., 2017). In addition, this result is consistent with that of Cho et al. (2015) who investigate Asian women in top management in China, India, Japan, Korea, Malaysia, Sri Lanka, Taiwan, and Thailand. According to the trend of the percentage of women directors for the last five years, Türkiye is below the world average. However, this rising trend shows the percentage of women directors will be higher than before in Türkiye.

In the literature, some studies emphasize the importance of institutions on women in management (Afzali et al., 2022; Fleischer, 2022; Kemp et al., 2015; Segovia-Pérez et al., 2018). Like some other studies (Afzali et al., 2022; Alhejji et al., 2018; Bader et al., 2022) institutional theory is examined from North's (1990) institutional view in our study. The results of the cluster analysis of formal institutions indicate that Türkiye is in the penultimate ranked cluster with Argentina, Belarus, Brazil, Bulgaria, China, Colombia, Croatia, Ecuador, El Salvador, Greece, Hungary, India, Indonesia, Jordan, Kosovo, Mongolia, Montenegro, North Macedonia, Peru, Philippines, Romania, Serbia, South Africa, Thailand, and West Bank-Gaza. According to the trend of the value of world governance indicators for the last five years, Türkiye is below the world average and interestingly the value of governance indicators has been decreasing for the last three years in Türkiye.

Overall, our results about Türkiye provide evidence that both the participation of women in management and the efficiency of formal institutions are below the world average. These results corroborate the findings of the previous work in Karatepe & Arıbaş (2015) in the context of Türkiye. Karatepe & Arıbaş (2015) also suggested that gender inequality in professional life negatively affects women in Türkiye more than in the world. These results differ from Öztürk & Şimşek's (2019) study which

emphasizes the influence of informal institutions such as multiple roles, personal perceptions, organizational culture, lack of mentors, and inability to participate in informal networks. In our study, we provide insights into the impact of formal institutions.

The main contribution of our study is that it investigates the participation of women at the senior-middle management level and the board of director level for the last three years with a cross-country comparison by highlighting the importance of the institutional context. Our study also provides implications for practitioners by explaining the better and worse degree clusters. However, our study has some limitations. Firstly, the sample of the study is limited to 87 countries including Türkiye. Secondly, the cross-country comparison is made by only cluster analysis. In future studies, regression analysis can be done to test the effect of institutions on the participation of women in management. Lastly, the impact of informal institutions will be investigated in the next studies.

We suggest some recommendations for both policymakers and practitioners. Our study highlighted that there are many things to do to achieve the world average both the participation of women in management and the efficiency of formal institutions. As a result of the existence of both international and national legal regulations regarding gender equality can play a deterrent role in gender inequality (Oğan & Wolff, 2020). Policymakers should give attention to the efficiency of formal institutions in Türkiye to achieve gender equality in management. Since formal regulations alone will not be sufficient, informal institutions such as culture, trust, beliefs, and individuals' decision-making mechanisms should be changed. This process will be more longitudinal than changing formal institutions. Therefore, there should be efforts to increase awareness of gender equality. For instance, the participation of women at management levels should be supported, more research can be done by scholars, projects about gender equality might be promoted, and training programs can be implemented by private sector representatives of the firms. All these recommendations will provide positive contributions both for gender equality and the development of Türkiye.

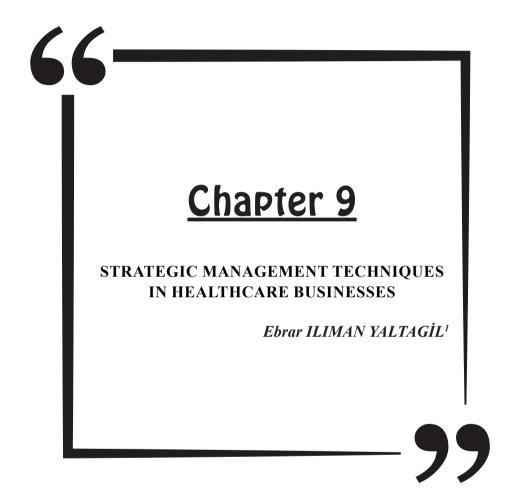
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Strategic management; It is a process of reaching decisions on what the organization should do and where it should go, in order to ensure that businesses adapt to the increasingly variable environmental conditions (Güçlü, 2003: 70). Strategic management consists of three stages: "Strategic planning", "implementation of strategies", "control and evaluation of strategies"(Parlak, 2011: 268). Positive impact on the outputs of health institutions due to the rapid change in customer demands and increasing competition; besides, due to its functions of ensuring a much more efficient use of resources; It has started to give importance to modern management techniques such as Total Quality Management, Outsourcing, Benchmarking and Reengineering (Özgener ve Küçük, 2008: 548). These and other strategic management techniques are briefly mentioned below.

1. BALANCED SCORECARD

The balanced scorecard or strategy performance measurement system is a technical representation used in strategic management. Developed by Robert Kaplan and David (Kart, 2013: 79), it is an important and simple strategy-oriented performance measurement system of balanced scorecard (BSC) based evaluation (David, 2013: 1 Ra65; Voelker, system (David, 2013: 1; Voelker, kich and French, 2001) : 13). In the method, the management at the education level can be shown in a general sense about the information that is more important than anything that can be used in a general sense and in accordance with it. BSC includes both objective and subjective performance in four main areas (İbrahim and Murtala, 2015: 73):

(1) financial perspective - measures of profitability,

(2) customer perspective - expressing the customer and the market,

(3) internal business process - business and innovation cycles,

(4) learning process and growth perspective - employee related measures and organizational procedures.

Initially developed in the business sector, BSC's performance measurement and strategic planning methodology has become directly applicable to the healthcare sector and healthcare organizations.

In today's society, the difficulty of managing costs in the healthcare organization requires healthcare managers to play an even greater role in strategic and functional decision-making processes. BSC provides organizational management that provides a perspective that increases the risks and benefits of strategic and functional decision making (Tengelimoğlu, Işık, & Akpolat, 2017: 414). The strategic decision-making process includes determining what equipment investments are required, analyzing merger opportunities, and helping determine appropriate sourcing strategies. Functional decision-making includes helping business managers un-

derstand the financial implications of their daily decisions, supporting process improvement initiatives, improving service quality, and thus ensuring financial performance (Player, 1998: 68). Because the balanced scorecard includes subjective and objective measures, managers can use the technique to get a fairly comprehensive view of operational results.

The cost and complexity of BSC often causes great initial resistance. For this reason, the implementation of BSC; requires critical thinking, teamwork, open communication, and the full support and commitment of the senior management team. Moreover, traditional thought patterns must be changed. It is necessary to look at the big picture in the long term and to fully understand the existing interdependencies (Voelker et al. 2001: 14). When the literature is examined; The method can be adapted to health institutions by removing the obstacles to its effective application (Karsavuran, 2013: 86; Zelman et al. 2003: 5), responding to needs (Aldur, 2008: 13; Dilmaç, 2011: 37; Erzurumlu, 2012: 23; Voelker et al. 2001: 23; Yıldırım, 2006: 20) and it is recommended by the health services managers who apply the method (Voelker et al. 2001: 23).

2. BENCHMARKİNG

Benchmarking includes themes such as continuous improvement, reference to the good, measurement versus systematic implementation procedures, and information sharing. Benchmarking, which is an important part of the learning organization approach, is the search for the current best or better practices in its own sector in order to be the best in its field, examining the processes according to the processes in the same or similar institutions within the framework of a predetermined procedure, comparing these reviews with their own application methods. It is the process of drawing conclusions and adapting them to their own processes for the purpose of continuous improvement (Beduk, 2014: 104; Çetin, 2010: 26; Öztürk, 2009: 69; Saruhan and Yıldız, 2009: 187; Sökmen, 2014: 353; Ersoy and Ersoy, 2011: 159). ; Fisher, 1998: 16; Saraç, 2005: 55).

When the literature is examined, it is seen that businesses use different benchmarking processes according to their purposes, but in general, the benchmarking process; It consists of planning, data collection, data analysis and adaptation, implementation and evaluation stages (Beduk, 2014: 122; Saruhan and Yıldız, 2009: 187; Sökmen, 2014: 361).

According to the purposes of benchmarking, there are different types as internal, competitive, functional, homogeneous, product or process-oriented, strategic benchmarking (Bumin, 2002: 116-122; Ersoy and Ersoy, 2011: 161; Uslu, 2005: 294).

The concept of benchmarking was accepted as a useful tool for the best value in health services in 1992 (Tengelimoğlu, Işık, & Akpolat, 2017:

526). In 1996, the "National Health Service (NHS) Benchmarking club" was established to provide and develop improvements in healthcare. The NHS Executive, the top governing body of health services, considered benchmarking good practice in improving services and meeting Government goals. In addition, some important features regarding the effectiveness of NHS organizations were observed. These; visible leadership, commitment to training and development, teamwork, stakeholder engagement and innovation. In addition, it has been observed that the use of self-evaluation models has a positive effect on organizational effectiveness (Uslu, 2005: 295). In terms of health institutions, comparison can be examined in two dimensions, internal and external, according to its purpose. Internal comparison is the comparison of similar processes or some situations in different parts of the health institution with other units. External benchmarking is the comparison of one or more of the processes of the health institution with the processes implemented by other enterprises (Demir and Uğurluoğlu, 2015: 224).

3. BUSINESS PROCESS REENGINEERING

In our Business Process Reengineering (BPR) language, reengineering means radical changes in critical performance measurement factors such as quality, service, speed and cost that the customer cares about in order to adapt to the environment, increase customer satisfaction and benefit stakeholders (Akçakaya and Yücel, 2007: 5). it expresses the radical change of organizational structure, all processes and information flow systems (Cetin, 2010: 25; Ersoy and Ersoy, 2011: 163; Marşab, 2009: 165; Neill, 1999; 571; Saruhan and Yıldız, 2009: 192). Davenport and Short (1990: 13) defined BPR as the analysis and design of business and processes within and between organizations. Talwar (1993: 25) focused on the restructuring and modernization of external relations, where business structure, processes, working methods are presented as valuable. Petrozzo and Stepper (1994: 45) argue that reengineering involves the simultaneous redesign of processes, organizations, and supporting information systems to achieve radical improvement in time, cost, quality, and customers' interest in their products and services. The aim of reengineering, as it is understood from its definitions, is the radical improvement of processes. In this process, in order for reengineering to be applied in the best way; Tools such as process visualization Barrett (1994: 18), process mapping and modeling, change management, benchmarking, process and customer focus, problem identification and solving, project management and measurement and evaluation can be used. The critical point for the success of the redesign is the people who will run the process. In this process, senior managers should lead and there should be a supervisory board, process owners, team leaders and redesign team (Neill, 1999: 578).

From the point of view of health institutions, with the increase in privatization, the competition between health enterprises has started to rise. For this reason, health institutions have started to use reengineering to gain competitive advantage, adapt to the environment, reduce costs and increase productivity (Kavuncubaşı and Yıldırım, 2010: 556). Waltston and Kimberly (1997: 50), factors that facilitate the use of reengineering method in health institutions; a permanent corporate vision, preparing and training employees for change, smooth transitions in project stages, use of effective communication methods, strong support and participation. If these factors cannot be provided, reengineering activities in health institutions fail (Aksu, 2000: 46; Kavuncubaşı and Yıldırım, 2010: 560).

4. DOWNSIZING

Downsizing, one of the restructuring strategies, is a savings strategy. It is a recommended tool to be used in cases where sales are insufficient, profitability falls, there are not enough resources to adapt to new technologies, or better investment opportunities arise in other fields (Ülgen and Mirze 2013: 201). Downsizing refers to the strategies implemented as a result of the conscious decisions taken by the managers in the enterprise and the changes in the organizational structure and business activities. These changes are changes such as reducing the number of personnel and costs, closing the units that perform activities outside of the basic skills or restructuring by reviewing all processes (Coşkun, 2016: 137; Köse, 2008: 111; Okumuş, Koyuncu, & Yünlü, 2012: 40). ; Tokat and Kara, 1999: 249). Businesses are more result-oriented by obtaining outputs such as cost reduction by downsizing, empowering personnel, accelerating decisions, being able to respond quickly to the environment, focusing on core competencies and customer needs, preventing communication problems, revealing new ideas, creating synergy, and monitoring personal responsibilities more easily. aims to study (Çetin, 2010: 28; Saruhan and Yıldız, 2009: 190). However, shrinkage may cause potential losses in the global market, damage to reputation, job anxiety of employees and decrease in motivation, and loss of trust of customers (Tokat and Kara, 1999: 249). Downsizing can be in the form of partial or full liquidation, or it can be in the form of outsourcing (Saruhan and Yıldız, 2009: 33). The downsizing strategy in health services is mainly provided by outsourcing. Thus, healthcare businesses can improve service quality and reduce costs by focusing on core competencies.

5. TOTAL QUALITY MANAGEMENT

Total quality management (TQM) is a continuous quality improvement system aiming to meet customer expectations and methods developed by quality management experts (Deming, Juran, Crosby and Oak-

land). TOM is a systemic approach that takes into account all kinds of interactions between the various elements of the organization. (Adinolfi, 2003: 143, Bucak, 2013: 81-86). The most important difference that distinguishes the TQM approach from other management systems is that it has been accepted as a universal management system that will improve every organization. (Akın, 2001: 32; Aydın, 2011: 151; Kuruşcu, 2003: 23). TQM's success criteria can be counted as the participation of senior managers, continuous training and development, change of organizational culture, appropriate organizational structure, creation of recognition and reward systems (Küçük, 2011: 143; Short, 1995: 257). TQM should not be seen as a program or system, but should be used as a set of philosophies and methods to guide an enterprise in continuous improvement at every step of its business processes. TOM philosophies emphasize the continuous improvement of processes through design and redesign (Akçakaya, 2010: 282; Akın, 2001: 34; Demirci, 2010: 20; Küçük, 2011: 120; Öztürk, 2009: 14). TQM is proactive in nature; Its purpose is to incorporate product and service quality into the process design and then continuously improve it (Short, 1995: 256).

TQM basic principles; customer orientation, cooperation with suppliers, leadership and responsibility of senior management, process orientation, employee training and participation (full participation), continuous improvement, zero error (Akın, 2001: 39; Bucak, 2013: 87; Çetin, 2010: 22- 25; Demirci, 2010: 23; Kuruşcu, 2003: 31-35; Küçük, 2011: 121; Tortop et al. 2016: 245).

Total quality management is also very important for the quality and efficiency of health services (Adinolfi, 2003: 143). The quality of health services is the highest expectation of improvement as a result of the balance of benefits and harms revealed by the units that make up the institution during the delivery of health services (Tengelimoğlu, Işık, & Akbolat, 2017: 510). However, according to many studies, although quality improvement programs can improve quality and efficiency in one or more departments at the operational level (clinic-related outputs, eliminating or reducing costs (waste reduction), minimal waiting time, and improved patient satisfaction), this improvement does not result in overall hospital improvement. it does not reflect its performance (Özgener and Küçük, 2008: 347).

The variables to be considered in determining the quality of the service provided in Avedis Donebedian health institutions; examined under seven main headings as effectiveness, efficiency, efficiency, optimality, acceptability, legality and equality (Kavuncubaşı and Yıldırım, 2010: 455-458). TQM has the potential to help hospitals solve many of the problems they are currently facing (Prior, 2006: 289). However, implementation of TQM is a long and complex process that affects every aspect of healthcare

organizations. Features such as the complex, bureaucratic and highly segmented organizational structure of health institutions, the level of knowledge of physicians, existing quality assurance programs, union-management relations, organizational culture, and professional autonomy cause failure in TQM practices (Short, 1995: 257). In the success of TQM approach in health services; Forward-looking leadership understanding, customer-oriented corporate culture, full participation of employees, active involvement of doctors in the process, continuous improvement approach and integration with the system are key factors (Tengelimoğlu, Işık, & Akbolat, 2017: 517).

6. CUSTOMER RELATIONS MANAGEMENT

The concept of customer relationship management (CRM) has emerged as an extension of marketing, as it aims to satisfy the customer and establish a relationship of trust by contributing to the important factors for sales known as the 4Ps (Price, location, promotion, product) (Yıldırım and Panayırcı, 2016: 11th).

The importance of the concepts of customer satisfaction and customer loyalty, understanding the value of the customer, the necessity of strategies to treat each customer according to their specific needs, the ever-increasing competitive environment, the developments in communication technologies have led today's institutions to customer-oriented practices in order to ensure their continuity and differentiate (Akgemci, 2008: 94; Yıldırım). and Panayırcı, 2016: 15-16). Strategies to be developed to differentiate; It can be based on product leadership, brand leadership, service leadership or customer relations. (Demir and Kırdar, 2007: 296). CRM is a process that covers all the pre- and post-sales actions established between the business and the customer, includes mutual benefit and needs satisfaction, and focuses on winning and retaining customers by creating and offering better value than their competitors (Buttle, 2004: 4; Demirel, 2007: 42; Odabaşı, 2010: 3). The Customer Relationship Management Process generally consists of four phases. These phases are customer selection; customer acquisition; customer protection and customer deepening (Demir and Kırdar, 2007: 301). A customer-focused business is one that learns by constantly adapting to customer needs and competitive conditions. There is evidence that customer orientation is strongly associated with job performance (Buttle, 2004: 5). Consistently superior service quality is a crucial prerequisite for the success of many companies; because it positively affects the company image, thus increasing customer satisfaction and customer loyalty. Accordingly, improving the perceived service quality will increase the corporate image, customer satisfaction and customer loyalty. As a result, the company will become able to compete and be successful in an increasingly

competitive environment (Laohasirichaikul, Chaipoopirutana and Combs, 2009: 2).

CRM has benefits for businesses in the form of customer-focused work, customer retention, more revenue, cross-selling, and more information gathering. To customers; It has benefits such as continuity, ease and effectiveness of the contact point, individuality, enhanced service and security (Yıldırım and Panayırcı, 2016: 20-22).

As a result of the increasing number of private hospitals with privatization in Turkey, there is an intense competition in the sector. While public hospitals try to prove that they provide quality health services by obtaining quality certificates, private hospitals also tend to be different in order to be preferred. Considering all these features, health institutions should be managed in accordance with professional and contemporary management techniques, which reveals the CRM approach as explained above (Bişkin, 2011: 157).

With effective customer relationship management practices in health institutions, various benefits such as creating a patient database, getting to know the patient and providing personalized service, thus ensuring patient satisfaction and loyalty, creating a positive image about the health institution, gaining competitiveness against rival institutions and increasing profitability will be achieved. Akgemci, 2008: 96; Bişkin, 2011: 159).

7. MISSION AND VISION STATEMENTS

Mission is the reason for the existence of the organization and is determined in order to give direction and meaning to it and is an important starting point in the strategy formation process (David, 2013: 77). Mission is an important tool in achieving the vision. It shows the identity of the organization, what it does to achieve its goals. In addition to its function of guiding employees in getting the job done, the mission also informs the society of the organization's work areas, values and philosophy. The most important function of the mission is to give direction to all employees in the organization (Coşkun, 2016: 54; Çetin, 2009: 98; Gölbaşı, 2011: 114; Okumuş et al. 2012: 25; Tengilimoğlu et al. 2017: 43; Ülgen and Mirze, 2013: 68).

Vision, on the other hand, is a concept at the top of the hierarchy of goals (Dinçer, 2007: 171). Vision can be considered as a living picture of the future, a desirable state after 40-50 years. When the literature is examined, vision can be defined as "a process that determines the values of an enterprise, the situation it is in, the goals it wants to achieve, and integrates the employees around a common goal and directs the organization towards the targeted future" (Coşkun, 2016: 51; Durna, 2002: 186; Gölbaşı. , 2011: 98; Okumuş et al. 2012: 26; Walker, 1994: 193; Tengilimoğlu et al. 2017: 43).

The vision is the result of the organization's mission, goals and objectives and values. Purpose describes what we want to achieve; The purpose should guide the growth process and reveal common values. Values, on the other hand, show what is important for managers and employees in reaching the goal (Tengilinoğlu et al. 2017: 44; Ülgen and Mirze, 2013: 69).

8. OUTSOURCING

Outsourcing has emerged as a contemporary management term in the international literature, which means the transfer of resources to outside and the shifting of secondary jobs out of the business (Akgemci, 2008: 73; Kalkan, 2015: 37). Due to the developments in communication and information processing technologies, international competition and globalization, human rights, education and living standards in general, changes in people's expectations, market conditions, government regulations, changes in financial and technological conditions; they had to provide speed, flexibility and cost advantage, and for this reason, they focused on their core competencies and turned to outsourcing (Karaca, 2006: 60).

Outsourcing is the management of the business in a better way by receiving services or products as input from businesses that are professionals in their fields other than their main business and core competencies (Akgemci, 2008: 73; Tengilimoğlu et al. 2017: 520). The Outsourcing restructuring model emerges as a management philosophy and a business management strategy (Karaca, 2006: 62).

Outsourcing process; It consists of five stages: needs assessment and strategy, proposal evaluation and selection, contract, implementation and follow-up, and re-evaluation (Sökmen, 2014: 370). The objectives of the DKK strategy can be listed as developing basic skills, increasing flexibility, reducing costs, reducing risk, monitoring technological innovations, saving time, downsizing and re-engineering, increasing quality and customer satisfaction (Saruhan and Yıldız, 2009: 189; Sökmen, 2014: 368; Young and Macinati, 2012: 774).

In recent years, with the increasing competition and workload in health enterprises; An outsourcing strategy has been adopted in order to focus on core competencies, reduce costs and specialize in activities that cannot be done in the hospital (Kavuncubaşı and Yıldırım, 2010: 300; Söyler, 2017; Tengilimoğlu et al. 2017: 521). Considering the organizational structure of health institutions, providing support services such as food, cleaning, security, hospital information systems, technical services, which are outside of their self-sufficiency such as diagnosis and treatment, are very important in terms of flexibility, speed, cost and service quality (Young and Macinati, 2008). 2012: 775).

9. STRATEGIC PLANNING

Strategic planning describes the way between the point where the organization is and the point it wants to reach and includes the decisions that guide the business (Uckun, 2010: 44). The purpose of strategic planning is to determine the strengths and weaknesses of the organization, to inform the managers, and to help determine the most effective and appropriate strategies (Parlak, 2011: 268-269; Tengilimoğlu, Isık, & Akpolat, 2017: 48). Strategic planning is the whole of the efforts to get results, including the participation of people at every level in an organization and the full support of the organization manager (Küçüksüleymanoğlu, 2008: 403). The basis of strategic planning is SWOT analysis (Gretzky, 2010: 92). It is a management and decision process related to expanding the resources of the business and ensuring, maintaining and improving the harmony between the opportunities and the business resources in the changing environmental conditions of the business. Strategic plans should be generalizable to the whole business and should cover the long term (Sökmen, 2014: 303). Tools such as linear programming, simulation and transportation are used in strategic planning (Saruhan and Yıldız, 2009: 197).

In order for strategic planning to be successful, directly affected by each other; Each of the stages, which can be listed as organizational values and principles, vision, mission, internal environment analysis, external environment analysis, critical success factors, goals, objectives, strategies and policies, action plans, resource allocation and performance, should be applied carefully (Küçüksüleymanoğlu, 2008). : 404). However, in the literature, there are criticisms that strategic planning neglects the internal environment while examining the external environment of the enterprise in detail and while adding a strategic dimension to planning, it ignores other functions of management (Ülgen and Mirze, 2013: 39).

10. STRATEGIC ALLIANCES

Collaboration strategy is one of the methods that businesses use when implementing basic strategies and corporate and functional strategies at different levels. Strategic partnership; It is the agreement-based cooperation of two or more businesses to realize their common and important goals by using certain assets and capabilities together, without establishing a new business under a new name or identity (Ülgen and Mirze, 2013: 362).

In the social sciences, research on economic growth in developing economies has reached a consensus on the important role that institutions play on each other (Millar, Choi and Chen, 2004: 397). In today's increasing competition, the fact that businesses have different resources that can eliminate each other's inadequacies, the high costs of growth alone and the benefits of catching a common synergy encourage strategic partnerships (Demir and Uğurluoğlu, 2015: 235). Strategic partnership or strategic cooperation can be in the form of an authorization agreement, combined marketing work, merging resources for a joint venture, or a complete merger and acquisition for businesses to gain competitive advantage (Akgemci, 2008: 262). The strengths of the businesses in strategic partnerships come together to create much stronger organizations that are resistant to competition, and thus growth can be achieved in a short time (Demir and Uğurluoğlu, 2015: 236).

Strategic cooperation; There are five basic categories: sales cooperation, solution-specific cooperation, geographical-private cooperation, investment cooperation and joint venture cooperation (Akgemci, 2008: 272). Businesses choose the most suitable one for them according to their purposes and conditions. Examples of such partnerships are; regional dealerships, know-how, subcontracting and franchising can be given (Ülgen and Mirze, 2013: 363).

11. SOCIAL MEDIA PROGRAMS AND INTERNET

As a result of today's technological developments and the fact that social media tools and the internet take place in every moment of life, businesses are also affected by this and they use social media effectively both in communication between employees, in relations with customers and in business processes as an advertising tool (Demir and Uğurluoğlu, 2015: 236).

The Internet is not the monopoly of a single person, institution or country, but is a joint ownership of companies and organizations using this technology, is affected by all kinds of changes in the social and technological field, can adapt to this change in a short time and offers important opportunities. it is a communication tool (Solmaz et al. 2013: 25).

Internet; It is indispensable for businesses in terms of giving everyone the opportunity to access a wide range of knowledge, establishing global connections without any problems, performing coordination, communication and decision-making functions quickly and easily, and providing competitive advantage (Demir and Uğurluoğlu, 2015: 237).

Social Media, on the other hand, is a common term for online tools and websites that create mutual interaction by providing users with the opportunity to share information, thoughts, interests and knowledge (Solmaz et al. 2013: 25).

The intensive use of social media tools such as Facebook, Instagram, WhatsApp, and especially the internet as a service tool, facilitates access

to customers and thus becomes an important competitive advantage by increasing satisfaction (Demir and Uğurluoğlu, 2015: 236).

As in all sectors, technology is used effectively in the provision of services in the health sector. It is recommended that health professionals use social media tools effectively as well as traditional methods for information transfer in the realization of the necessary application principles for the improvement of health (Mendi, 2015: 277).

Today, health institutions include titles such as online appointment, e-history, my health file, health consultation on their web pages or by creating their own accounts in social networks and aiming to reach their target audience from here, to strengthen branding, communicate with employees and customers, create service awareness, share ideas and opinions. they have started to benefit from the advantages of technology for purposes such as sharing and obtaining feedback (Demir & Uğurluoğlu, 2015). The Internet is a tool preferred by people who want to access health information, as it provides users with opportunities such as privacy, access to information according to their needs, interaction and social support (Mendi, 2015: 276).

12. VALUE CHAIN ANALYSİS

The competitive advantages of enterprises in the sector depend on the success of their activities. As long as these activities create more value than their competitors, they provide competitive advantage (Ülgen and Mirze, 2013: 121). Value chain is the series of important business activities that add value to the products or services provided to their customers (Türk, 2004: 233).

The term "Value Chain" was first used by Michael Porter (Türk, 2004: 234). Porter examines the activities carried out in enterprises in two groups as basic activities and support activities. Core activities are the income generating activities associated with the physical production, distribution, sale and delivery of goods and services to customers. Since the costs of these activities will be less than the value created, businesses bear these costs. Basic activities; It is examined in five main groups as inward logistics, production, outbound logistics, marketing-sales and service activities. Support activities are those that support the basic activities of the business and contribute to the creation of value; business infrastructure, procurement, human resources management and research and development activities (Saruhan and Yıldız, 2009: 40; Ülgen and Mirze, 2013: 123).

Value chain analysis; It tries to describe the entire chain in which the product is presented to the customer. The focus of value chain analysis is to strategically analyze what critical factors and activities need to be considered in the value chain, from vendors to end customers, how differentiation will take place, in comparison with competitors' capabilities and activities, in order to look at things externally and manage costs effectively. (Türk, 2004: 234; Uçkun, 2010: 22). Thus, analysis enables businesses to examine their activities in connection with each other and to develop their activities with new techniques that create value (Ülgen and Mirze, 2013: 127).

Health institutions also provide security, cleaning, nutrition, etc. By outsourcing support activities, it focuses on treatment services and creates its value chain.

13. BUSINESS PORTFOLIO ANALYSIS

Portfolio analysis is an increasingly popular strategic tool for analyzing the strategic business units of a business, allocating resources among various business units in the most appropriate way, and drawing a growth path for the organization (Udo-Imeh, Edet, Anani, 2012: 104).

Portfolio analysis is used to determine the position of the business in the market and the relationship between all business units of the company, the analysis is based on the market share of the enterprises and the growth of the market in which the enterprises are located (Coşkun, 2016: 141; Tengilimoğlu, Işık, & Akpolat, 2017: 49). Business portfolio analysis is usually done through matrices (Çetinkaya, 2006: 63). With these matrices, analyzes are made on what strategies businesses should follow within the sector and in which areas it would be more advantageous to direct their investments (Akgemci, 2008: 81). While portfolio analysis is carried out in three stages as defining strategic business units, preparing the matrix suitable for business units, interpreting the prepared portfolio matrix and selecting the new strategy, each investment of the enterprises; Various measures such as profitability, growth and competitiveness are created and graded, and the benefits of these investments to the business are tried to be estimated based on these measures (Dinçer, 2007: 269).

Portfolio analysis; It is carried out using various matrices such as Boston Advisory Group Matrix, McKinsey Matrix, Hofer Analysis, Ansoff Growth Vector Matrix and Porter Competition Analysis (Akgemci 2008: 35). However, the oldest, simplest and most widely used of these matrices is the Boston Advisory Group Matrix (BDG) (Udo-Imeh, Edet, Anani, 2012: 102).

14. SUPPLY CHAIN MANAGEMENT

Supply chain; It is a network extending from suppliers to final customers of institutions directly participating in the product, service, finance, information and value stream (Özkan, Bayın and Yeşilaydın, 2015: 74). Supply chain management (SCM) is to bring together the raw materials, auxiliary materials and production tools (labor, natural resources, capital, technology) to be used in production, to bring them to the production points, to store them when necessary, to turn them into products, to market them and to provide the final customers with the most appropriate cost and the best solution. conditions (Erdal, 2011: 11-12; Nebol, 2006: 5; Long, Translator: Tanyaş and Duzgun, 2016: 50). In other words; It covers the planning, coordination, direction and control of all activities including sourcing, procurement, production and all logistics operations (Erdal, 2014: 241).

The supply chain basically consists of the suppliers and customers of the enterprise. In the extended supply chain, initially the final supplier; Finally, there is the final customer. In the last link, there are service providers that provide services to all businesses in the supply chain (Erdal, 2014: 243; Özkan, Bayın and Yeşilaydın, 2015: 74-75). SCM aims to balance the functional organization by focusing on processes that will serve the customer better, therefore it prefers the process approach rather than the functional approach (Weele, Editor Metin Çancı, Translator Timuçin Binder, 2013: 253). Its main purpose is to create value for the customer, in other words, to fulfill the requirements in the most effective, efficient and economical way and to keep the cost at the lowest level while providing this service. For this reason, it is also referred to as the value chain. (Nebol, 2006: 4)

SCM functions in businesses; demand and order management, planning, purchasing, stock management, warehouse management, shipment and distribution, but these functions show some differences due to the characteristics and complex structure of healthcare businesses. Since many different and various services are offered together in health services, there is a large number of goods and services needed. It is not possible to compensate for the disruptions that may occur in the service due to lack of material or delay. For this reason, it is more important to fulfill SCM and its functions in hospitals (Bayar, 2008: 54).

15. SWOT ANALYSIS

Businesses need to adapt to the environment in order to ensure their continuity and achieve their goals in an environment that is rapidly changing and competition is constantly increasing. One of the techniques used for this purpose is SWOT (FÜTZ) analysis. "SWOT" is formed by combining the initials of the English words Strengths, Weaknesses, Opportunities and Threats (Gretzky, 2010: 92). In the literature, it is also seen as FÜTZ analysis, which consists of the initials of the words opportunities, advantages, threats and weaknesses.

SWOT analysis, the current state of the business; It refers to the process of determining the assets, capabilities, strengths and weaknesses, as well as identifying the opportunities and threats that may come from the environment and harmonizing them with each other. The concepts of strengths and weaknesses in SWOT analysis are related to the analysis of the internal environment. Opportunities and threats are related to external environment analysis. Compared to the competitors in the market, the assets and unique abilities of a business such as financial resources, human resources, technological equipment, cost advantage, brand value, in other words, assets and capabilities that cannot be easily imitated and substituted by their competitors, their strengths, the jobs they cannot do well and the ones they do not have or do not have. limited resources show their weaknesses. In order to maintain their continuity and profitability, businesses should identify these weaknesses and strengthen them using the benchmarking method (Dincer, 2007: 142; Ertuna, 2008: 99; Saruhan and Yıldız, 2009: 38; Sökmen, 2014: 310-318; Tengilimoğlu et al. 2017: 373; Ulgen and Mirze, 2013: 160).

Health institutions also operate in a highly variable environment and face many opportunities and threats. In today's world where competition is constantly increasing, healthcare businesses can also ensure continuity, increase their service quality and profitability by using SWOT analysis effectively. With SWOT analysis, health managers who are aware of their strengths and weaknesses and are prepared for all kinds of opportunities and threats from the external environment will be able to easily decide which of the other strategic management tools would be more appropriate to use (Demir and Uğurluoğlu, 2015: 242; Gretzky, 2010: 93).

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Chapter 10

IMPACTS OF COVID 19 ON THE VOLATILITY OF STOCK RETURNS: ANALYSIS OF MRO INDUSTRY IN AVIATION SECTOR WITH EVENT STUDYS

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Abstract

COVID-19 is evidently one of the most important shocks, which have impacted the aviation sector severely. Mainly due to the pandemic, various industries in the aviation sector reported massive losses in 2020, including airports and ANSPs (Air navigation service providers), manufacturers and lessors, GDS (Global distribution system) providers, catering, ground services, and MRO (Maintenance, repair, and overhaul) providers. MRO industry is specifically crucial for the functioning of the airline sector as it helps to avoid failures before they occur, support the effective delivery of services, and reduce financial risks. Hence, the main purpose of the study is to analyze how COVID 19 impacted the volatility of stock returns in the MRO industry, by focusing on the pre-event, event and post-event periods of COVID-19. The study comprises a sample of 9 MRO companies and the research period is 10.09.2020 - 26.03.2022 The event date is COV-ID-19 declaration by World Health Organization (13.03.2020). We employ an event study analysis with ARCH volatility models. While positive volatility changes are observed for MROs operating in USA, negative volatility changes are observed for MROs operating in EU. The results of the study imply that American aviation investors are more sensitive to COVID-19 compared to European aviation investors.

Key Words: Aviation Sector, MRO Industry, Covid-19, Event Study, ARCH Models

1. Introduction

Compared to other sectors, the aviation sector is more vulnerable to tragedies such as oil crises, natural disasters, armed conflicts, terrorist attacks, economic recessions, and disease outbreaks

(Suau-Sanchez et al., 2020). Especially in the past two decades, the aviation sector has faced several vital economic and natural shocks including SARS and MERS epidemics, the avian flu and Indonesian volcano ash clouds (Deveci et al., 2022); (Chung, 2015). Likewise, 1973 oil crisis, the early 1980s Iran-Iraq War, the early 1990s Gulf Crisis, the 1997 Asian Financial Crisis, and the financial crises of 1998 and 1999 were other crises that challenged the aviation sector (Bureau, 2020). Another recent example was the 9/11 attacks, which caused a significant drop in passenger numbers. In fact, many airlines in the USA sought official assistance to stay afloat following the terrorist attacks and the state passed a law in congress to grant aviation loans and guarantees to safeguard sector's sustainability (Bailey, 2002). Similarly, 2007–2009 economic slump weakened several airlines critically. It was estimated that the losses in the airport cost efficiency during that period was estimated to be 5.8%, which is equivalent to US\$5.5 billion (Voltes-Dorta & Pagliari, 2012).

Obviously, COVID-19 pandemic is evidently one of the most important shocks, which have impacted the aviation sector severely. Covid-19 has gone beyond any other outbreaks that happened in history and taken the aviation sector into an unfamiliar territory (Suau-Sanchez et al., 2020). According to the IATA (International Air Transportation Association), global air traffic had plummeted by 80% as of early April 2020 compared to the previous year (Heiets & Yibing, 2021). Deveci et al. (2022) claim that this is the first time the aviation sector has encountered such a massive international crisis. As a result, numerous airlines have entered a financially troubled period. The leading globally affected airline companies include but are not limited to Qatar Airways, Emirates, Delta Air Lines, American Airlines, Southwest Airlines, United Airlines, China Southern and China Eastern Airlines, Ryanair, EasyJet, Lufthansa, and Turkish Airlines. Likewise, there was a massive decrease in the passenger statistics of the European Airports (100 million passengers). This decline indicates that the airport industry has lost €2 billion of passenger revenue in the first quarter of 2020 (Review, 2020). During the early days of the outbreak of the pandemic, Asia-Pacific was considered to be the only region which would be affected by COVID-19, as it was thought to be a domestic epidemic. However, the number of international flights started to decline by mid-March significantly, and by early April, it had fallen to 20% of its pre-pandemic level from the year's beginning, a sign of the paralysis of international air transport system. As a result, IATA predicted a 38% decline in global RPK (Revenue Passenger Kilometers) in 2020 and a loss of US\$ 252 billion in passenger revenue compared to 2019 (Heiets & Yibing, 2021). The vulnerability of the aviation sector witnessed during COVID-19 generates concerns about the airline sector's capacity to develop sufficient financial resilience to deal with the costs continually imposed by disasters and other internal and external shocks (Dube et al., 2021).

Furthermore, the pandemic inflicted financial destructions across the aviation value chain, particularly for airlines. Various industries in the aviation value chain reported massive losses in 2020, including airports and ANSPs (Air navigation service providers), manufacturers and lessors, GDS (Global distribution system) providers, catering, ground services, and MRO (Maintenance, repair, and overhaul) providers, although freight forwarders and cargo airlines were the only bright spots to generate healthy economic profits in 2020: 4 percent for freight forwarders and 9 percent for air cargo carriers (Bouwer et al., 2022). Specifically, MROs collective-ly suffered an economic loss of \$3.6 billion in 2020 due to COVID-19. Although the commercial MRO market's revenues did improve by 40% in 2021, a full recovery to 2019 and 2020 levels is not anticipated until 2024 (Bouwer et al., 2022). MRO industry is specifically crucial for the functioning of the airline sector, as it helps to avoid failures before they

occur, support the effective delivery of services, and reduce financial risks. Hence, the main purpose of the study is to analyze how COVID 19 impacted the volatility of the returns in the MRO industry by focusing on the pre-event, event and post-event periods of COVID-19. In fact, various studies have explored the impact of COVID-19 on subsectors/industries in the aviation sector, for example, airlines (Adiga et al., 2020); (Xuan et al., 2021); (Fontanet-Pérez et al., 2022); (Vinod, 2021); (Kumari et al., 2022) airports, and ANSPs (Blišťanová et al., 2021); (de Souza et al., 2021); (Taryam et al., 2020); (Dollard et al., 2020) freight forwarders and cargo airlines (Deveci et al., 2022); (Adediran, 2021); (Remencová et al., 2021) and civil aviation (Ilat et al., 2022); (Shaban et al., 2021); (Rodbundith & Sopadang, 2021); (Sahoo et al., 2021). However, to our knowledge, there is no scientific study in the literature regarding how the COVID-19 outbreak impacted the MRO industry. Hence, this study will be one of the first studies to explore the impact of the COVID-19 outbreak on the MRO industry of the Aviation sector.

The remainder of the paper is organized as follows: Section 2 presents the theoretical background while Section 3 describes the data and the methods utilized for data analysis. Section 4 illustrates the findings and lastly Section 5 concludes the study.

2. Theoretical Background

2.1 Aviation sector and Covid-19

The aviation sector generates \$2.7 trillion (3.5%) of the global GDP, and thus it has long been considered as a crucial sector in the economy (ACI et al., 2019). The fact that the aviation sector is susceptible to various unexpected crises, such as airborne threats, sabotages, terrorist attacks, cyberattacks, and other bio, chemical, and radiological threats brings about severe damages to the tourism sector, as well as deficiencies in safety and security measures in air travel and transportation (Henderson, 2003). Therefore, special attention should be given to assess the impacts of such crises on the aviation sector.

Sudden catastrophic events such as pandemics, disasters, and emergencies can alter investor behavior and bring about anomalous returns in stock markets (Carpentier & Suret, 2015); (Maneenop & Kotcharin, 2020); (Singh & Neog, 2020). Pandemics may cause investors to react depressingly to lower expected cash flows and therefore lead to poor stock performance (Farooq et al., 2022). With the outbreak of COVID-19, there was a visible rise in economic concerns and lower economic confidence among investors, which caused dramatic price falls in the stock markets (Altig et al., 2020). For instance, S&P 500 and S&P Europe 350 lost more than a third of their values on March 23, 2020, compared to the historical peak on February 19, 2020, with a 12% drop in value on a single day in mid-March (Martins & Cró, 2022). Stock price falls were especially observed in industries whose operations were directly disturbed by the stringent measures implemented worldwide against the pandemic. As a result of the travel bans, the aviation sector was impacted by pandemics more harshly compared to other industries. According to the data from the Transportation Security Administration (TSA) of the United States, only about 95,000 passengers were screened at the country's airports on April 16, 2020, which denoted a 96% drop from 2.6 million on the same day last year. Hence, the sector suffered its sharpest contraction since World War II (Advisers, 2020).

Lockdowns and travel restrictions mainly disrupted the operating activities of the airline industry and the transportation sector in particular, triggering lower stock returns for the companies operating in these sectors. Several studies have investigated the effects of COVID-19 on aviation stock returns by using event methodology. For example, a study focusing on the transportation and travel services sectors of the USA, UK, France, China, India, Mexico, Turkey, and Thailand demonstrated that companies in developing nations experienced significant negative abnormal returns in response to COVID-19's second wave (Farooq et al., 2022). Similarly, another study analyzing the short-term effects of COVID-19 on listed airline firms worldwide illustrated that after three big COVID-19 announcements, airline stock returns decreased more noticeably compared to market returns. According to the findings, investors responded to the three announcements in different ways. The strongest reaction was observed following the official announcements by the World Health Organization (WHO) and US. President Trump (Maneenop & Kotcharin, 2020). Furthermore, he added that traders in Western nations seemed to be relatively more responsive to recent information. Finally, a study that attempted to quantify the reaction of U.S. airline stock prices to COVID-19 shocks by impulse response functions displayed that as a response to a 1% COVID-19 shock, airline stock values immediately fell by 0.1 %. Moreover, the effects of the shocks appeared to continue, with most airline stock prices declining by as much as 0.6 % after fifteen days (Atems & Yimga, 2021).

2.2 Maintenance, Repair, and Overhaul (MRO) Industry and Covid-19

The services of the MRO industry include inspection, part replacement, repair, overhaul as well as aircraft and component modifications (Liangrokapart & Sittiwatethanasiri, 2022). The maintenance, repair, and overhaul (MRO) businesses combine the logistical setup (including the level of supply chain vertical integration) with the technical capability of the airline company. The primary responsibility of an airline's MRO is to deliver a fully serviceable aircraft and other activities such as repair, modi-

fication, overhaul, inspection, and determination of condition when needed by the operators at the lowest possible cost and highest possible standard (Al-kaabi et al., 2007); (Knotts, 1999). The MRO activities are often governed by specific laws to assure flight continuity and safety. For continued use clearance, crucial equipment on airplanes must undergo MRO at predetermined intervals. Therefore, overhaul efforts are constrained by the severe deadlines (Ertogral & Öztürk, 2019). The estimated value of the global aviation MRO market in 2021 was USD 87.01 billion, and it is projected to grow at a CAGR (Compound annual growth rate) of 4.57% from 2022 to 2030. The importance of the MRO industry can be judged by the fact that it typically constitutes 10-15 percent of an airline's operating costs (Seristö, 1995). The market is anticipated to expand faster than other aviation-related markets due to rising economic growth in emerging nations, rapid urbanization, and increased business and tourist travel. Additionally, more aircraft are anticipated to be produced due to the growing air travel by people for personal and professional reasons, which will significantly impact the sector (Research, 2022). However, the market is anticipated to be highly impacted by several external factors, including air traffic volumes, the size of the worldwide fleet, and aircraft utilization. Today, aircraft owners and operators rely on a wide range of organizations for their overall maintenance, repair, and overhaul requirements, regardless of the sector of the aircraft maintenance industry, such as general aviation aircraft, business aircraft, helicopters, airlines, or the military airlines (Pros, 2010). Due to the increase in air travel and aircrafts, the demand for the services of the Maintenance, Repair, and Overhaul (MRO) industry has been growing significantly (Chetu, 2018). Thus, global MROs have developed into a competitive aviation sector in response to the ongoing and rising demand for certifying aircraft's reliability, safety, productivity, and supporting facilities (McFadden & Worrells, 2012). MRO services is the second-highest source of cost for an aircraft after fuel prices. Airlines aim to cut MRO costs while maintaining quality and safety amid intense competition in the aviation sector. Many airline companies founded their own MRO firms to handle their MRO services, such as Lufthansa Technic, Air France/KLM, and Turkish Technic (Ertogral & Öztürk, 2019). Over time, these firms expanded to provide services to other companies. To ensure enough room for MRO activities at different airports across the globe, governments are currently pursuing various comprehensive initiatives, However, the MRO industry faces various challenges as a result of the lack of skilled and experienced labor as well as rising labor costs due to declining interest among new graduate engineers in technical maintenance occupations (Research, 2022). In addition, MRO providers and airlines face the need to invest more heavily in software that will maximize productivity and keep operations in line with demand, given the increasing growth of the aviation sector. The maintenance process which includes maintenance tracking, logbook tracking, flight time tracking, administration of service bulletins, maintenance scheduling, budget forecasting, electronic task card management, and work order management is managed by MRO software, which also provides solutions to increase productivity and improve user experience (Chetu, 2018). Growing investments in aircraft MRO software are also anticipated to open up new business opportunities. For instance, in May 2021, India experienced significant foreign direct investments across a range of industries including MRO of airplanes as foreign businesses concentrated on acquiring billions of dollars' worth of aircraft MRO services (Research, 2022).

However, the aviation sector and MRO market have been severely impacted by the COVID-19 outbreak. The sector had a tough time during the pandemic due to containment measures taken by various nations. Although the aviation sector has begun to recover, it will likely take some time before the sector returns to its pre-pandemic levels (Analysts, 2022). Before the pandemic, it was reported that spending was expected to hit more than \$115 billion in just ten years. However, the pandemic forced every airline to keep its whole fleet on the ground. Hence, the spending on MRO slowed down. Nevertheless, with the flight demand increasing again, the number should return to what was expected (Aeroclass, 2021). The decline in MRO business occurred as most airlines parked fleets or were temporarily out of service during the pandemic. Therefore, there was less demand for maintenance, repair, and overhaul services. Airlines also cut off unnecessary MRO costs, which impacted the vital supply chain of materials, parts, and services (Liangrokapart & Sittiwatethanasiri, 2022).

Amid the COVID-19 crisis, the global market for Aircraft Maintenance, Repair, and Overhaul (MRO), estimated at US\$47.3 Billion in the year 2022, is projected to reach a revised size of US\$55.6 Billion by 2026, growing at a CAGR of 3.7% over the analysis period. This revised figure shows the re-opening of MRO business after the pandemic. In terms of the U.S MRO market, it is expected to reach US\$10.1 billion in 2022. The second-largest economy in the world, China, is anticipated to grow at a CAGR of 5.9% to reach a projected market size of US\$6.3 billion by 2026. Japan and Canada are two other notable geographic markets, with growth rates of 2.2% and 2.3%, respectively for upcoming years. Germany's growth in Europe is anticipated to be around 2.8% CAGR (Analysts, 2022). Each fleet complexity will result in substantial changes in the MRO industry over the next decade. Over ten years, the demand for commercial airline MRO will increase at a healthy 3.8% CAGR, rising from \$75.6 billion to just over \$109 billion by 2027 (Cooper et al., 2018).

Data and Methods

Our research data comprises of MROs from different segments of aviation. The more specific feature of the MRO industry is that there are no special and sharp differences among the companies operating within the industry. For example, an MRO, a Spare Part or supplier companies can build partnerships with a civil-proposed airline or a military-proposed aircraft company. We selected our sample in light of this argument carefully. The data was collected for 9 MRO companies: AAG (Atlantic Aviation Group), AIR (AIRBUS SAS), ATSG (Aviation Technical Services Group), BAES (BAE Systems), BBDb (Bombardier Aerospace), LHAG (Lufthansa Technik AG), SAF (Safran SA), RTX (Raytheon Technologies), SIAE (SIA Engineering Company). Stock markets of the companies in the sample include NASDAQ in the USA, XETRA in Germany, London in the UK and Singapore Exchange in Singapore. We applied an event study analysis with ARCH volatility models to the return series computed with the formula given below.

 $R_{s} = [(SP_{i,t}) - (SP_{i,t-1})] / (SP_{i,t-1})$

Where,

 $R_s = Return of stock prices,$

SP = Stock Price,

- i = Company,
- t= time.

Market returns (Rm) are computed with the formula used to compute stock returns. Then, Market Adjusted-Return series (Rm) are calculated with the formula given below.

 $R_{AD} = R_m - R_s$ $R_{AD} = Adjusted return of stock prices,$

 R_{m} Return of market prices,

Rs = Return of stock prices

Our research period begins on 10.09.2020 and ends on 26.03.2022 and includes 139 days (estimation period). The event date is selected as 13.03.2020 as the date of COVID-19 declaration by World Health Organization. Anticipation days include 9 days before the event, while adjustment days include 9 days after the event.

In OLS regression estimation, Dummy variables are utilized as follows,

$$Y_{t} = \beta_{0} + \beta_{1} Y_{i-n, t-n} + \beta_{2Yi}, t + \beta_{3Yi-n, t+n} + \mathcal{E}_{i}$$

n = {1,2,3,4,5,6,7,8,9} and t=0,

Equation (1)

Where,

 $\beta_0 = \text{constant of the model},$

 β_1 = coefficient of anticipation dates,

 β_2 = coefficient of the event date

 β_3 = coefficient of adjustment dates.

The regression model with dummies is organized according to the [-9, 0, 9] event analysis period for each variable, as described below.

$$Y_{t} = \beta_{0} + \beta 1 D 1_{Y_{i-n, t-n}} + \beta_{2} D_{2} Y_{i, t} + \beta_{3} D_{3} Y_{i+n}, t_{t+n+\epsilon_{i}}$$

n = {1,2,3,4,5,6,7,8,9} and t=0,

Equation (2)

D1 D2 D3 Anticipation [-9,0] 0 0 1 Anticipation [-8,0] 0 1 0 Anticipation 0 [-7,0] 1 0 Anticipation [-6,0] 1 0 0 Anticipation [-5,0] 1 0 0 Anticipation [-4,0] 1 0 0 Anticipation [-3,0] 1 0 0 D1 D2 D3 Anticipation [-2,0] 1 0 0 Anticipation [-1,0] 1 0 0 Event [0,0] 1 0 0 Adjustment [0,1]0 0 1 Adjustment [0,2] 1 0 0 Adjustment 1 [0,3] 0 0

Dummy variables have been coded as follows:

| Adjustment | [0,4] | 0 | 0 | 1 |
|------------|-------|---|---|---|
| Adjustment | [0,5] | 0 | 0 | 1 |
| Adjustment | [0,6] | 0 | 0 | 1 |
| Adjustment | [0,7] | 0 | 0 | 1 |
| Adjustment | [0,8] | 0 | 0 | 1 |
| Adjustment | [0,9] | 0 | 0 | 1 |

To measure the changes in the risk of stock returns in these periods; GARCH [1,1], EGARCH [1,1] and TARCH [1,1] models are used.

For the GARCH (1,1) model,

$$h_{t} = \omega + \sum_{l=0}^{n} d_{n,-n} D_{n,-n} + a e_{t-1}^{2} + \beta h_{t-1}^{2}$$

Equation (3)

Where D₁ and D_n are measures of volatility. n = {1,2,3,4,5,6,7,8,9} For the EGARCH [1,1] model, $h = a_0 + \sum_{j=1}^{q} a_j \varepsilon_{t-j}^2 + \sum_{i=1}^{p} \beta_i h_{t-i} + \delta_k \sum_{l=0}^{n} D_{n,-n}$

Equation (4)

Where D are measures of volatility.

 $\mathbf{n} = \{1, 2, 3, 4, 5, 6, 7, 8, 9\}$

For the TGARCH [1,1] model,

$$\begin{split} \mathbf{h} &= & a_0 + \sum_{j=1}^q \beta_j \sigma_{t-j}^2 + \sum_{i=1}^p a_{t-i}^2 + \sum_{h=1}^r \gamma_h \; \varepsilon_{t-2_+}^2 \\ \delta_k \sum_{l=0}^n D_{n,-n} \end{split}$$

Equation (5)

Where D are measures of volatility.

 $n = \{1, 2, 3, 4, 5, 6, 7, 8, 9\}$

Findings

To analyze whether there is a significant impact of the declaration of COVID-19 on market adjusted returns, OLS regression is employed the results of which are given in Table 1.

| Company | Anticipation | Event | Adjustment |
|---------|--------------|-----------------|-------------|
| AAG | -0.021431566 | -0.217230063*** | 0.028581* |
| BBDb | -0.02725*** | 0.096669429*** | -0.00063 |
| ATSG | 0.00206 | -0.14615*** | 0.028185** |
| BAES | 0.0018 | 0.03 | 0.004 |
| AIR | -0.021 | 0.128*** | 0.035** |
| SAF | -0.009449911 | -0.032604829 | 0.010560331 |
| LHAG | 0.0228*** | 0.015252 | -0.01381* |
| RTX | -0.00371 | -0.05059*** | 0.005481 |
| SIAE | -0.00215 | -0.03265*** | -0.01288*** |

Table 1. OLS Regression Results

*** 0.01 significance level, **0.05 significance level, *0.10 significance level.

It can be inferred from these results that the MRO industry has suffered severely from the WHO declaration on 2020 March,13. For this reason, providing a deeper analysis of the market's volatility is necessary.

Unit root tests are used to test if the series are stationary. For this purpose, 2 different unit root tests are utilized. Their results are shown in Table 2.

| | ADF | PP |
|----------|--------------------------------|------------------------------|
| AAG | -10.58429*** | -10.75907*** |
| AIR | -5.410726*** | -11.2309*** |
| ATSG | -17.96388*** | -17.39043*** |
| BAES | -10.10758*** | -14.22915*** |
| BBDb | -5.846125*** | -15.28925*** |
| LHAG | -11.2168*** | -11.60433*** |
| RTX | -12.42607*** | -12.41391*** |
| SAF | -6.530295*** | -8.82151*** |
| SIAE | -12.86353*** | -12.80569*** |
| *** 0 01 | a laval **0.05 significance la | val *0.10 significance lovel |

Table 2. Augmented Dickey Fuller and Phillips Perron Unit Root Tests

*** 0.01 significance level, **0.05 significance level, *0.10 significance level.

There seems to be no unit roots in the time series according to the results. Akaike Information Criteria (AIC) and ARCH-LM test results for the models are presented in Table 3.

| | | AAG | AIR | ATSG | BAES | BBDb |
|-----|--------------------|-------------|------------|-------------|-------------|-------------|
| | ARCH LM F (1st) | 71.87581 | 48.28183 | 0.141618 | 8.300903 | 4.224454 |
| | ARCH LM p (1st) | 0.0000 | 0.0000 | 0.7073 | 0.0046 | 0.0418 |
| AIC | GARCH(1,1) | -4.116086 | -3.936176 | -3.325744 | -4.611941 | -5.958662 |
| AIC | EGARCH(1,1) | -4.305137 | -4.17812 | -4.42473 | -4.890929 | -7.323796 |
| AIC | TARCH(1,1) | -4.520268 | -4.290725 | -4.309243 | -4.886219 | -7.321712 |
| | MODEL | TARCH(1,1) | TARCH(1,1) | EGARCH(1,1) | EGARCH(1,1) | EGARCH(1,1) |
| | ARCH LM F | 0.267895 | 0.101854 | 0.276795 | 0.704214 | 1.003466 |
| | ARCH LM p | 0.6056 | 0.7501 | 0.5997 | 0.4029 | 0.3183 |
| | | LHAG | RTX | SAF | SIAE | |
| | ARCH LM F (1st) | 0.036167 | 21.06812 | 52.19988 | 7.523469 | |
| | ARCH LM p (1st) | 0.8495 | 0.0000 | 0.0000 | 0.0069 | |
| AIC | GARCH(1,1) | -4.637247 | -5.426339 | -5.568511 | -6.146573 | |
| AIC | EGARCH(1,1) | -4.772443 | -6.416782 | -5.833607 | -6.271162 | |
| AIC | TARCH(1,1) | -4.756754 | -6.432506 | -5.855292 | -6.241145 | |
| | MODEL | EGARCH(1,1) | TARCH(1,1) | TARCH(1,1) | EGARCH(1,1) | |
| | ARCH LM F | 0.490478 | 0.324149 | 0.063176 | 0.212992 | |
| | ARCH LM p | 0.4849 | 0.5701 | 0.8019 | 0.6452 | |

Table 3. Akaike Information Criteria Results and ARCH-LM Results

After the ARCH effects in the series have been eliminated; TARCH (1,1) model seems to be suitable for AAG, AIR, RTX and SAF, while EGARCH (1,1) model seems to be suitable for ATSG, BAES, BBDb, LHAG and SIAE. In Table 4, coefficients of EGARCH (1,1) for BBDb, SAF and TARCH (1,1) for AAG and AIR models are presented. For ATSG, BAES, LHAG, SIAE and RTX, the ARCH effects are not significant. Besides, Durbin-Watson statistics show that autocorrelation is eliminated from the time series.

| TARCH(1,1) AAG USA | | | | |
|---------------------|-----------|-----------|--------------|-----------|
| Anticipation | 0.017253 | 0.00352 | 4.901406 | 0 |
| Event | -0.101664 | 0.106065 | -0.958514 | 0.3378 |
| Adjustment | 0.08886 | 0.022799 | 3.897511 | 0.0001 |
| ω | 9.37E-05 | 2.71E-05 | 3.457204 | 0.0005 |
| α | 4.72335 | 1.249238 | 3.780985 | 0.0002 |
| β | 0.072466 | 0.029651 | 2.443961 | 0.0145 |
| δ | -3.678924 | 1.28651 | -2.859616 | 0.0042 |
| Durbin-Watson | 1.763206 | | | |
| | , | TARCH | (1,1) AIR EU | |
| Anticipation | -0.055113 | 0.0102 | -5.403062 | 0 |
| Event | 0.006438 | 0.127326 | 0.050565 | 0.9597 |
| Adjustment | 0.105817 | 0.038802 | 2.727114 | 0.0064 |
| ω | 0.000104 | 3.46E-05 | 3.018117 | 0.0025 |
| α | 2.746313 | 0.774709 | 3.544961 | 0.0004 |
| β | 0.108418 | 0.069475 | 1.560536 | 0.1186 |
| δ | -1.679421 | 0.933747 | -1.798582 | 0.0721 |
| Durbin-Watson | 1.704856 | | | |
| | | EGARCH | (1,1) BBDb E | U |
| Anticipation | -0.044519 | 0.00637 | -6.988352 | 0 |
| Event | 0.127172 | 0.121396 | 1.047581 | 0.2948 |
| Adjustment | -0.000631 | 0.013614 | -0.046351 | 0.963 |
| ω | -1.003883 | 0.413518 | -2.427662 | 0.0152 |
| α | 0.869044 | 0.171863 | 5.056602 | 0 |
| β | 0.970044 | 0.035426 | 27.3824 | 0 |
| δ | -0.305743 | 0.113893 | -2.684487 | 0.0073 |
| Durbin-Watson | 2.011228 | | | |
| EGARCH (1,1) SAF EU | | | | |
| Anticipation | 0.004175 | -0.438121 | 0.6613 | -0.000766 |
| Event | 0.06432 | -0.857276 | 0.3913 | 0.000111 |
| Adjustment | 0.020126 | -0.27846 | 0.7807 | -0.002233 |
| ω | 0.557026 | -1.763733 | 0.0778 | 1.42E-05 |
| α | 0.169428 | 4.077809 | 0 | 0.238003 |
| β | 0.054271 | 17.42895 | 0 | 0.525015 |
| δ | 0.087136 | -2.13373 | 0.0329 | 0.582464 |
| Durbin-Watson stat | 1.547071 | | | |

Table 4. Model Coefficients

For AIR and AAG; as implied by the coefficients of the TARCH (1,1) model, there seems to be asymmetrical effect in the series, but no leverage effect. For BBDb and SAF; as implied by the coefficients of the EGARCH (1,1) model, there seems to be asymmetrical effects in the series.

5. Conclusion

We observe significant changes in the volatility of returns of AIR, AAG and BBDb in the anticipation, event or adjustment periods. For AIR, AAG both periods are significant, while for BBDb there is a change in the volatility of returns for the anticipation period. While positive volatility changes are observed for MROs operating in USA, negative volatility changes are observed for MROs operating in EU. The results of the event study imply that American aviation investors are more sensitive to the declaration of COVID-19 compared to European aviation investors. Our findings are in line with the findings of Maneenop and Kotcharin (2020), which infer that western nations seem to be relatively more responsive to recent information.

Our study has some limitations in terms of the companies included in the sample. We suggest further studies can explore volatility of stock returns in different industries of the aviation sector.

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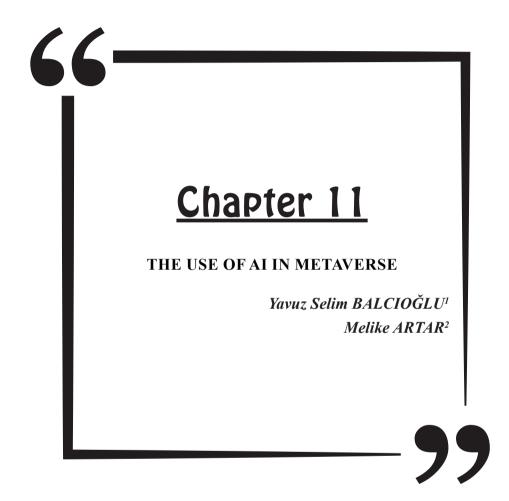
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INTRODUCTION

In the 1990s and beyond, when the Internet was revolutionized, various innovative technologies were created to provide users with breathtaking experiences in cyberspace with more virtual interaction. With the development of the Internet over the years, the rapid prevalence of new communication technologies in daily life allows many new concepts to be included in our lives (Hwang and Chien, 2022). Today, the virtual environment offers hundreds of services, from virtual games to social media platforms. The concept of metaverse is a good example that can be given to these concepts and phenomena lately (Ning et al., 2022).

Facebook acquired the Oculus company in 2012, investing in and developing this technology. At the same time, it has decided to establish a large virtual platform to bring together all the digital universes used and produced related to augmented reality (AR) and virtual reality (VR). While Facebook changed its name to Meta, it announced the name of this great platform that it had been willing to establish as Metaverse (Kim, 2021).

When we look at the use of the word metaverse, it is seen that this concept, which has become popular today, was used for the first time 30 years ago. The prefix 'meta' in Ancient Greek means 'beyond' and 'after'. "Verse" is derived from the word "universe" meaning universe (Kemp & Livingstone, 2006). The concept of metaverse is expressed as "cyberspace" in William Gibson's science fiction novel "Neuromancer" published in 1984. However, the closest use of the meaning of Metaverse is in Neal Stephenson's dystopian science fiction novel "Snow Crash" written in 1992. In the novel, Metaverse is defined as a virtual medium where users can enter, socialize, work, study, visit friends, travel, play games and shop with AR and VR glasses (Mystakidis, 2022). Today, Metaverse aims to create a universe where digital worlds merge in just such an environment.

Metaverse takes these visualization technologies to another dimension by combining these visualization technologies on the blockchain (Ynag et al., 2022) infrastructure and also by providing artificial intelligence support (Tsamados et al., 2022), it is accepted as a new internet application integrating various new technologies, so it is basically social it is positioned as the next form of media (Ning, et al., 2021). Metaverse, which aims to immerse users in digital items on screens, seems to have the potential to change not only social media concepts, but also our lives, relationships, behaviors and even our physiology (Kim, 2021).

The use of ai in the Metaverse is significant and seen as the next step in human evolution. Its importance can be proved by its presence in many science fictions, such as the matrix. Many people see artificial intelligence as the way to move forward for humanity (Hwang and Chien, 2022). It will take care of repetitive and complicated tasks for humans to do manually, such as managing databases, or it can even generate new ideas and solutions that humans never thought about.

Although the Metaverse was first brought to the agenda by Facebook, big technology companies such as Google and Microsoft have been making significant efforts to develop their own Metaverses for a long time (Mys-takidis, 2022). While technology companies design their own metaverses, commercial companies design stores and develop products suitable for these metaverse universes (Kim, 2021). As we see the large-scale investments made by the world's leading companies in the Metaverse universes, it is possible to say that the Metaverse universes will occupy a larger place in our lives in the future compared to today. Beyond simulating real life, all these preparations initiated by big players from different sectors will offer important innovations and opportunities in the metaverse environment, which is a whole of digital universes where what cannot be done in real life can be done (Li et al., 2021).

These new imaginary worlds are attracting us in part because of the new communication tools and settings. This universe, whose impact we feel deeply in every element of life, is attempting to construct a new world from scratch in all of the essential sectors, ranging from the economics to working life, from entertainment to culture and art. The definition of the word "metaverse" in its broadest sense is the primary focus of this research, as is the question of which aspects of the metaverse will make use of artificial intelligence.

2. LITERATURE REVIEW

2.1. Metaverse

Users are able to speak with one another in the metaverse, which is analogous to communication in the real world. It is the creation of a digital world in which objects, environments, avatars, and events in the Metaverse universe are designed to approach the experience of being in the physical world. Technologies such as blockchain, augmented reality, and virtual reality are used in the creation of this digital world.

Metaverse, which emerges as a new communication technology, expresses a fictional universe in which all digital structures are combined. Although the metaverse seems to be conceptually a phenomenon obtained from the combination of real and virtual, it would be more accurate to approach this concept in detail in terms of scope (Ning et al., 2022). Metaverse, which positions itself between the real and the virtual, shows a tendency that receives support from both universes. The state of being in reality brings with it the feeling of being in the virtual environment and becoming embodied.

The best example that can be given to this sense of existence is provided by the VR (virtual reality) glasses, which are widely used nowadays and worn on the head. Or, by creating virtual representations of your own in the metaverse environment, you can say "I'm in" in certain areas and leave your virtual fingerprint in the virtual universe (Kim, 2021). You can interact in the digital environment with your avatar that you have created for yourself, and you can find a place for yourself in a universe that is always open and unlimited.

The metaverse may be broken down into three primary components. These are presence, interoperability, and the capacity to standardize. The sensation of sharing a digital place with other people, often known as "being embodied," is what we mean when we talk about presence. The capacity to effortlessly move across sandboxes while bringing along the same virtual assets, such as avatars and digital assets, is what we mean when we talk about interoperability. The purpose of standardization in the metaverse is to guarantee the interoperability of various platforms and services (Mystakidis, 2022). According to Dionisio et al. (2013), the shift to a three-dimensional virtual network or metaverse of the metaverse is feasible in the following four areas: immersive reality, ubiquitous access and identification, interoperability, and scalability. When dealing with realism, it is essential to ascertain whether or not the user will be able to feel mentally and emotionally involved in the alternative place if the virtual space is sufficiently realistic. Being ubiquitous is defined as the continuity of the user's capacity to access the virtual spaces that make up the metaverse with all accessible digital devices and virtual identities. This ability to access these virtual spaces is what makes up the user's experience of being ubiquitous. The term "interoperability" refers to the efficient functioning of virtual environments as well as the seamless combination of different computer systems. Scalability also takes into consideration whether or not the internet server has the power to support larger servers (Dionisio et al., 2013).

Lee and colleagues stated that in the context of new generation technologies such as 5G, systems such as human-computer interaction, artificial intelligence, blockchain, computer vision, internet of things and cloud computing create the metaverse ecosystem(Lee et al., 2021:1). Jee Young Lee (2021) focuses on how the metaverse can integrate the virtual and the real on three-dimensional software, emphasizing that the phenomenon can develop in the context of "hyper reality". Again, it is possible to say that there are studies in which metaverse is explained through three-dimensional software in current studies. At the same time, Wei Chong Ng et al. (2021) focus on new ecosystems in the service provision of metadata warehouses regarding existence in the metaverse universe in real time. Chong Ng et al. present case studies and virtual training suggestions on how virtual and real worlds can work randomly through these ecosystems. On the other hand, Yue Han et al. (2021) made certain models about how to synchronize the Internet of Things (IoT) and data in order to make the metaverse more effective with their study named "A Dynamic Resource Allocation Framework for Synchronizing Metaverse with IoT Service and Data". Hendaoui et al. (2008) also focused on three-dimensional social virtual worlds, and through examples related to virtual commercial environments, it was commercially important that the money flow in this environment continued despite the virtual environment.

With the spread of the metaverse universe, new business opportunities and employment opportunities for individuals will emerge. For example, studies are continuing on the participation of disabled people in the workforce thanks to augmented reality (XR) technology (Ning et al., 2022). With these advanced technologies, disabled individuals will freely create their avatars in the metaverse universe and participate in business life. The value of the metaverse world, which plans to provide employment, is increasing day by day. In this context, according to the research of Bloomberg Intelligence, the global metaverse revenue in 2020 is 500 billion dollars. This revenue is expected to increase to US\$ 800 billion in 2024.

In addition to the services Metaverse offers to users, it is sold at significant prices in virtual spaces. Last year, Metaverse Group bought a parcel on the virtual reality platform known as Decentraland for \$2.43 million. This has been determined as the highest price in virtual real estate. In addition to Metaverse Group, Activision Blizzard, the video game company of Microsoft, aims to improve its games and offer new experiences to its users in the meta world. Activision Blizzard has signed a game development deal for \$68.7 billion to improve its services and enter the metaworld. In addition, some internationally famous artists buy land from the metaverse world at high prices to give their concerts (Kim, 2021). This rapid development of the metaworld has attracted the attention of internet finance businesses, online game makers and other technology leaders.

In the last few years, developments in hardware and software have enabled the virtual world to be built in a more real way. Apart from virtual structures and spaces created in the virtual world, digital products, objects and created virtual identities can switch between different virtual environments and even be reflected in the real world. It offers a more immersive experience than traditional metaverse methods by using a number of techniques such as natural language processing, neural interface and computer vision through artificial intelligence.

2.1. METAVERSE AND AI

Kemp and Livingstone (2006), in their work, provide information about computer tools commonly called Virtual Environments (VE). V.E. allow participants in multiple locations to share a virtual space and interact using various sensory modes. Interaction takes place through audio, text, graphics, movement, and touch. A survey of educators interested in using V.E. for teaching finds that most teachers are motivated by the educational possibilities of the various senses offered through V.E. Finally, they present a case study that uses Second Life as an exemplar (Kemp and Livingstone, 2006).

Dionisio et al. show that the Metaverse is an overarching term for a "virtual universe" composed of many virtual worlds, created using software and hardware from HP and Oculus. This evolution from connected 3D virtual worlds relies on hardware (the HP Z VR backpack) and software (Viveport) improvements. To bring about this functionality, the industry has to navigate four "regions": virtual worlds, identity and interoperability, realism, and scalability (Dionisio, Burns, and Gilbert, 2013).

Mozumder et al., in their paper, "Metaverse," are utilizing an approach in which a substantial number of disparate devices and machines, whether mobile or fixed, can be linked together, forming a sizeable networked computing environment that shares typical IoT, blockchain, and artificial intelligence technologies. Metaverse aims to bring the convenience and efficiency of such IoT platforms and other blockchain technologies to the public to provide people with a second online home (Mozumder et al., 2022).

Jeon et al. show that blockchain and artificial intelligence are closely related to technology development. In the virtual world in which COV-ID-19 is distributed, new technology is being used daily to change how we see the world. Artificial intelligence and blockchain technologies combine intelligence and leadership in virtual reality. The article is about how A.I. can be implemented in the virtual reality we know today, improving our present lifestyles (Jeon et al., 2022).

Zhu shows that using Metaverse applications to help maintain economic development, the first challenge is the lack of a flexible, lightweight A.I. technology framework. The second challenge is development is often a heavyweight multi-team project with standard templates and interfaces to support the development of digital twins, virtual humans, and A.I. technologies and the co-creation of mixed reality applications in multiple industries (Zhu, 2022).

3. A.I APPLICATIONS

The future of technology is often spoken about in terms of artificial intelligence (A.I.) and robots. It's no secret that A.I. and robots are becoming more and more advanced, and they're starting to play a more significant role in our lives. This vision is becoming increasingly a reality with the development of Artificial Intelligence (A.I.) and other cutting-edge technologies. There are many elements in the metaverse universe. They work directly or indirectly together with artificial intelligence technology. It is shown in detail in Figure 1.

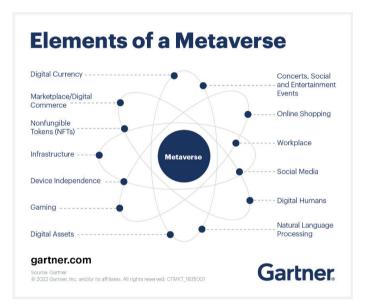


Fig 1. Elements of a Metaverse, from Gartner.com

There are already several companies working on creating the Metaverse. Some of the most notable include Magic Leap, Oculus, and Microsoft. The Metaverse will likely be built on existing platforms such as the Internet, but it will be a completely immersive experience.

A.I. robots have the ability to see and hear individuals, allowing them to comprehend what it is that they are saying. They could also make use of voice and body language to carry on human-like conversations and interactions. In the Metaverse, artificial intelligence robots take the form of 3D chatbots that are able to react to and respond to your activities inside a virtual reality setting. Non-player characters, also known as NPCs, are virtual reality or gaming characters whose responses and actions are predetermined by an automated script or set of rules. This is in contrast to a user-controlled character, which is a character that is controlled by the player. A.I. robots are not made by humans at all; rather, they are developed entirely by A.I. and play a significant role in the expansion of the Metaverse. The term "virtual beings" may refer to anything from NPCs to automated helpers in a virtual reality workplace.

In this study, theories about the application processes of artificial intelligence applications in the Metaverse world are explained. There are four types of leading ideas. These are; Business Communication, Immersive sales, Online Education, and Blockchain Applications.

3.1. Business Communication

Metaverse will transform the corporate communication landscape by implementing upcoming technologies that enable the business to communicate more intimately and at a deeper level. Since existing communication platforms are designed as legacy software, they are inadequate for collaboration purposes and cannot capture the organic energy of the participants involved (Shen et al., 2021).

Metaverse will usher in the future of communication, where users will be to exchange holographic images in real-time like an actual business meeting. For example, you could have a full-scale hologram of another person seated in front of you and speaking with you as they would in person (Narin, 2021). This could apply to residential and commercial spaces as well. In addition, guests would be able to tour empty spaces with walkthroughs and video interaction with physical components without actually visiting in person.

The developed A.I. technology can help business communication by overcoming language barriers or be used for universal language processing. For example, the technology can process the business requirements and then provide the business documents in the target language that connects to the right target audience (Kshetri, 2022). It also helps executives from companies to better understand and access foreign markets, cultures, and customers.

3.2. Immersive Sales

Virtual billboards and ads on highways and expressways are significantly impacting the sales process, and many businesses are getting themselves featured in virtual ads. The entire sales and marketing process will witness a fantastic transformation that will accelerate business growth. Imagine virtual hoarding seen by millions of users or avatars in real-time and businesses spending money to acquire rights to those advertisement spaces (Bolger, 2021). This is no more fiction, as inventors buy metaverse real-estate and strengthen their virtual assets for monetization. These opportunities for sales and marketing through the Internet have increased significantly since 2010 (Dionisio, Burns & Gilbert, 2013). There will be a significant change in how we distribute and consume marketing content due to the creation of the Metaverse. With data points such as physical location, preferences, and customer history, the brand will be able to communicate products and services in a much more advanced manner than ever before. As a result, every user will get content specific to their needs, thereby significantly increasing the chances of success for the business.

The shopping experience will be completely revolutionized as a result of research in this field. Customers will have access to things in a manner that has never been seen before thanks to the development of physically accurate 3D merchandise models and virtual stores (Kshetri, 2022). It is now simpler to look for a certain product or to evaluate many distinct variations and designs. This Metaverse will make it possible for customers to engage in customized purchasing by allowing them to input their preferences. The options are almost unlimited, and they range from quickly comparing book choices to purchasing a pair of jeans from an online store and trying them on in your living room as a substitute for a traditional fitting room (Dwivedi et al. 2022).

It's feasible for companies to increase their level of creativity using metaverse marketing, which allows them to attract their ideal customers in the most alluring manner imaginable. As a direct consequence of this, more and more businesses are beginning to conduct their digital marketing in the metaverse (Hollensen, Kotler & Opresnik, 2022). In the digital world, there are a number of conferences, events, and other types of meetings that take place online. It is something that may appeal to everyone, particularly in COVID-19 settings. Even if it's just in a virtual sense, they may continue to be together. Alterations in consumer behavior and lessons learned from the past both point to the fact that the metaverse is here to stay for the foreseeable future (Jo, 2022). The metaverse for digital marketing is only getting off the ground, but early indications suggest that it will be a very intriguing space. Given that it is still in its infancy, fundamental ideas may prove to be useful for commercial enterprises. There are already a great number of companies competing in this arena.

3.3. Online Education

The Metaverse is an educational platform that enables users to create their own digital avatars and attend actual lessons from real professors and instructors. These genuine professors and teachers may even be users' friends from social networks or large education providers such as Khan Academy or Coursera. The most essential advantage for pupils would be the availability of visually appealing learning tools that will assist them in comprehending topics and theories to a depth never before seen (Kye et al., 2021). Additionally, they will be able to engage in direct conversation with other students using digital aids while they are present in the classroom.

In contrast to the currently available 2D online courses, Metaverse will provide 3D environments in which users may interact with one another via digital avatars. Users are able to take part in interactive activities such as tinkering with virtual circuit boards or sending each other messages on interactive whiteboards rather than simply staring at images on the screen (Tlili, 2022). Students now have the ability to participate in lectures given by professors who do not teach remotely by using the same technology.

The field of education has a long and illustrious history of both invention and advancement; nevertheless, the advantages of education are often out of reach for many different groups owing to the expensive prices of excellent education (Hwang & Chien, 2022). Platforms for online education provide a very effective means of imparting knowledge to students. However, a significant portion of what is offered online does not fully satisfy the requirements of the population as a whole because of the high expenses involved, as well as a lack of quality control and monitoring.

3.4. Blockchain Applications

Blockchain is one of the core technologies that spawned cryptocurrencies, the Internet of things (IoT), and other decentralized digital platforms. Blockchain enables the development of Non-fungible tokens (NFTs), a prime feature of virtual reality games and secure identification (Gadekallu et al. 2022). These capabilities allow the construction of cross-chain trading platforms, enabling a new class of digital assets and Metaverse, parallel virtual universes to evolve in diverse yet interlinked and intricate ways.

Blockchain can make cryptocurrencies much more potent due to the high power of its open-source nature, in which data and resources are shared in a peer-to-peer network. With blockchain technology, transactions are recorded on an immutable ledger available to anyone who participates in the network without requiring centralized financial intermediaries or other third parties (Koppu et al., 2022). All information is recorded chronologically and is transparently accessible to all network participants. Furthermore, records are secure against tampering and revision, as they are cryptographically protected.

The growing complexity of real-world issues and lack of trust, transparency, and security in data transmission are holding the mass adoption of AI (Gadekallu et al. 2022). This project aims to utilize blockchain technology to address the trust and data transmission issues and make them transparent so they can be dealt with; hence, it can help bring AI closer to the world.

A distributed database that is shared across nodes on a computer network is what is known as a blockchain. A blockchain may be thought of as an electronic database that stores information in a distributed ledger (Ynag et al., 2022). The most well-known use of blockchain technology is in cryptocurrency systems like Bitcoin, where it may be used to maintain a public and decentralized ledger of all transactions. The innovation that is brought about by the blockchain is that it is able to do away with the need for a third party while still guaranteeing the accuracy and safety of data records. The data structure of a blockchain is quite unlike to that of a conventional database. A blockchain may be thought of as a distributed digital ledger that organizes and stores data in the form of blocks that can include several data sets. When a block is complete, it will close and connect to the block that came before it. The blockchain, which is sometimes referred to as a data chain, is the product of an extensive process that results in the merging of data into a freshly formed block, which is then added to the chain after the process is finished. A database organizes its data into tables, while a blockchain, as its name indicates, organizes its data into chunks that are linked together. These chunks are called blocks, and they are connected to one another (Koppu et al., 2022). This data format produces an unstoppable and irreversible data stream whenever it is employed in a decentralized setting. When a section of a block is finished, it is given a permanent status and added to this timeline. Each new block that is added to the chain receives a time stamp when it is added. The term "metaverse" refers to a vast online environment in which users are able to engage in nuanced interactions with 3D virtual representations of themselves and other users, as well as with 3D digital goods.

4. Conclusion

Over the last several decades, artificial intelligence development has taken place in a variety of fields. However, the implementation of this technology in virtual reality is quite recent. The use of artificial intelligence in the metaverse has lately garnered a lot of interest owing to the fact that it has the potential to improve the productivity and overall quality of our lives. Nevertheless, if it can be used as a digital platform in the same way that mobile applications are, it will significantly alter the ways in which we engage with and consume digital content. Businesses, government agencies, and non-governmental organizations (NGOs) will try to capitalize on the opportunities presented by this new environment in a variety of domains, such as customer support, sales and marketing, employee engagement, training, public relations, and other domains. With the help of technologies like neural networks and deep learning, artificial intelligence is included in the Metaverse in the form of an intelligent agent that can carry out tasks in accordance with the demands and requirements of the user. The impact that artificial intelligence (AI) is having on our everyday lives is significant. It is also crucial to stay abreast of the capabilities and boundaries of artificial intelligence as the use of AI spreads across a growing number of distinct business sectors. We are certain that our study will make a contribution to the field by fostering a greater understanding of the ways in which A.I. may be used to enhance both everyday life and the workplace. In addition, it will assist software developers in making more effective use of artificial intelligence and developing superior products. International Research in Social, Human and Administrative Sciences I - December 2022 ·187

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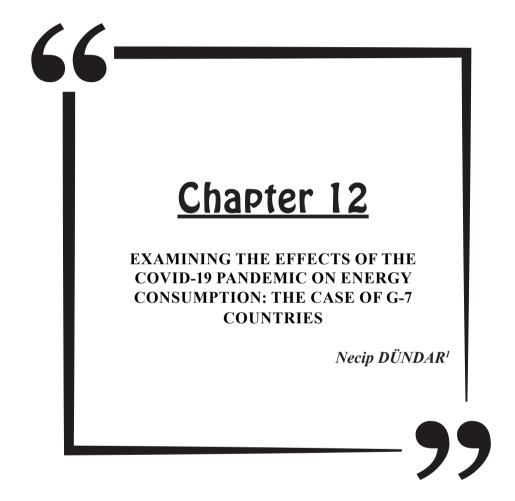
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1. Introduction

The novel coronavirus, identified as 2019-nCoV or SARS-CoV-2 in January 2020, is a virus of zoonotic origin. It is thought that this virus first appeared in Wuhan, China and spread all over the World. This new virus spread rapidly from China to other countries, started to threaten public health and caused a serious number of deaths all over the world. Considering this situation, the World Health Organization (WHO) reported a pandemic in March 2020. With the onset of the pandemic, countries implemented some policies to prevent the increasing rate of the virus. At this point, the pandemic has begun to affect people's daily life forms. During the pandemic process, many restrictions or prohibitions such as not leaving the house, working from home, distance education, the obligation to use face masks, social distance, partial or complete prohibition of all kinds of social activities have been implemented.

The COVID-19 pandemic has adversely affected numerous sectors, like sports, food, finance, agriculture, education, tourism, health and manufacturing. The energy sector has naturally been exposed to these negative effects. Considering the statistics and projection data, the International Energy Agency (IEA) estimates that energy demand of the world will decline by 6% in 2020 compared to the previous year and this shock will be the biggest of the last 70 years. Considering the average values for the 2015-2019 period, the total average electricity production of 16 countries in Europe declined by 9% in April 2020, nuclear energy declined by 14%, fossil energy declined by 28%, but renewable energy increased by 15% (Jiang et al., 2021). Morever, energy demand of world declined by 3.8% in the first three months of 2020 compared to the previous year, despite the increase in residential electricity demand. Although overall energy demand has fallen, the degree of policies implemented by countries around the world to control the virus has varied. Some countries implemented full isolation, while others had to impose partial curfews. These differences in the measures were also reflected in the electricity consumption profiles of these countries. For example, electricity consumption fell by about 15% in France, India, Spain and the United Kingdom during quarantine periods, while energy use in China fell by 6.5% in the first three months of 2020 and at the peak of the pandemic, electricity demand fell by 37% in Italy (Abdeen et al. 2021). Lockdown measures began to gradually ease in many countries towards the beginning of summer 2020, and a second wave of the virus began to spread in many

countries as people struggled to cope with the new realities of COVID-19. During this period, the IEA published a comprehensive report stating that electricity consumption decreased in numerous countries and regions like the European Union, USA, China and India. In Italy, pandemic restrictions and unemployment caused by the pandemic worsened economic conditions. In the second six months of 2020, while out-of-home food consumption declined by 64%, there were decreases in both food exports and imports. However, the decline in global energy demand due to the COVID-19 has led to unprecedented instability in the energy markets. The decline in oil prices in international markets also proves this negative situation. Despite this, it has been observed that residential electricity consumption has increased in similar periods in some countries. Moreover, the decrease in greenhouse gas emissions as the decrease in the demand in the fossil fuel-dominated electricity sector can also be expressed as the positive effects of the pandemic (Vaz, 2022). There are many studies (Werth et al., 2020, Agdas and Barooah, 2020, Alhajeri et al., 2020, Halbrugge et al., 2021, Santiago et al., 2021) that estimate energy demand reduction. Bompard et al. (2020) examined the effects of COVID-19 pandemic on the energy sector. Chiaramonti and Maniatis (2020) suggested that the COVID-19 has decreased electricity demand globally by about 15%. All these studies on energy consumption support the argument that the COVID-19 has major impacts on human life. Therefore, the aim of this research is the relationship between the COVID-19 and energy consumption for G-7 (Group of Seven) countries. The causal relationship between energy consumption and the number of COVID-19 cases in the G-7 countries was analyzed with the Dumitrescu-Hurlin (2012) panel causality test. When the framework of the research is examined, firstly, the literature on the subject is explained. Then the data, method, model and findings used in the study were explained. Finally, the conclusion part was mentioned and the study was completed.

2. Literature

It is obvious that the pandemic affected the energy sector adversely. Therefore, many researchers have used a wide variety of analyzes to research the effect of the COVID-19 outbreak on energy. Aruga et al. (2020) investigated the effect of the number of COVID-19 cases on energy by applying the ARDL model for India. In the study, they found that COVID-19 cases positively affected energy consumption. Awomuti et al. (2020) investigated the effect of the COVID-19 outbreak on energy for Canada. According to the research, due to COVID-19, many businesses have been adversely affected, energy consumption has decreased and it has

caused great uncertainties in supply and demand forecasts. In addition, as most factories and industries have closed, commercial and industrial consumption has decreased, which has reduced greenhouse gas emissions and Co2 emissions compared to similar periods in previous years. Chen et al. (2020) investigated climate change issues the dynamics of energy use patterns and the social-psychological factors between residents' acceptance of home energy management systems and their willingness to pay for home energy management systems for New York residents. According to the survey evaluation, they found that most of the participants used electricity above the average. Eroğlu (2020) examined the relationship between COVID-19 and renewable energy and environment. In the study, resources related to the reduction of environmental pollution of COVID-19 are stated, but there are also studies that significant environmental damage is expected. Wang et al. (2020) examined the effect of the COVID-19 outbreak on energy consumption in China with the ARIMA model. The ARIMA simulation was based on electricity consumption during 2015'-2019 and produced the imitaded value of China's electricity consumption of January-August 2020, considering the pandemic-free scenario. Indeed, electricity consumption of non-pandemic scenario was lower than actual. Kahn and Nacafi (2021) examined how COVID-19 affected the energy consumption of the USA, using data for the period 2015–2020. The study concluded that the most dramatic decline was experienced in the transport sector, which in turn affected the primary energy used by this sector. It has also had a major impact on Co2 emissions and other air pollutants. Karadağ (2021), researched the impact of COVID-19 on the Turkish economy in the electricity, oil and natural gas sectors. SWOT Analysis was applied for the energy sector of Turkey. As a result of the SWOT analysis, depending on the technological developments and innovations experienced in the Turkish economy before the COVID-19 process, renewable energy, energy security and energy efficiency issues came to the fore after the COVID-19 process. Khan and Sahabuddin (2021), in their study investigating how COVID-19 affected Bangladesh's energy sector during the 2019 and 2020 pandemic quarantine period, examined daily and hourly demand changes for different power generation regions. In the study, they concluded that the maximum hourly demand across the country decreased bv approximately 14% between 17:00 and 18:00, while the minimum demand decrease (3%-4%) happened between 19:30 and 20:00. In addition, they found that the national absolute greenhouse gas emissions decreased significantly in this period compared to 2019. Xu et al. (2021) analyzed the effect of the decrease in load demand in the Japanese public electricity grid on renewable energy in April-May 2020. In general, the demand for the total load decreased and the switch to the load order lowered the electricity price. Kang et al. (2021), investigated energy consumption and COVID-19 in South Korea. In the study, they found that energy consumption due to the COVID-19 outbreak was lower than the previous year. Soava et al. (2021), using a multi-linear regression model, analyzed the effect of the COVID-19 outbreak on electricity consumption and growth in Romania with data for the period 2007-2020. In the study, they found that the COVID-19 severely impacted electricity consumption and GDP in the first six months of 2020. Tawalbeh et al. (2021), using ARMA and ARIMA models, investigated the effect of COVID-19 outbreak on the energy sector for the short-term in Jordan. In the study, they found that electricity demand in Jordan decreased by 17.5% in early April 2020 compared to previous year. Alavi et al. (2022), with a neural network-based forecasting model, examined the impact of the curfew due to the COVID-19 outbreak on Bangladesh's overall electricity consumption. In the study, the change in electricity consumption for residential, industrial and commercial areas was analyzed in detail as the curfew and the post-curfew period. As a result, they found a significant decrease in Bangladesh's overall electricity consumption during the quarantine period, along with significant decreases in industrial and commercial areas.

3. Data and Methodology

With the increasing the impact of the pandemic, countries started to close their borders, disruptions in production supply chains began to occur, and economic activities in many countries began to come to a standstill. On the other hand, the pandemic has begun to have an impact on global energy supply and demand. For this reason, it was aimed to examine the relationship between the COVID-19 pandemic and energy consumption for the G-7 countries In the study, monthly series consisting of the amount of electricity consumption obtained after deducting factors such as exports, imports and taxes from the production amount of total energy resources as renewable and non-renewable and the number of people infected with COVID were used. In the study, the International Energy Organization (IEA) data sets for the period 01.02.2020 and 30.03.2022 were used and the logarithm of both variables was taken.

| Variables | Abbreviation of Variables | Data Source |
|------------------------------|------------------------------|---|
| Electricity consumption(GWh) | ENERGY | The IEA (International Energy Agency) |
| Number of COVID Cases | COVID | Our World In Data (<u>https://ourworldindata.org/</u>) |

Table 1. Variables Used in the Model, Abbreviations and Data Sources

In this study, panel VAR (Panel Vector Autoregressive) analysis was preferred. The panel VAR analysis was chosen because the internal interaction of energy consumption and the relationship between the COVID-19 outbreak could be explored. It can be checked whether the delayed effects of the COVID-19 on energy consumption or whether feedbacks to the COVID-19 have occurred in energy consumption.

The panel VAR model was estimated as follows:

$$Y_{it} = A_1(L)Y_{it} + A_2(L)W_t + u_{it}$$
(1)

In the equation, Y_{it} is a vector of endogenous variables consisting of energy consumption and COVID-19 case count variables, W_t is a vector of predetermined or exogenous variables, $A_1(L)$ and $A_2(L)$ are delay operators. u_{it} represents a vector of random disturbances, *i* represents the countries under consideration, *t* represents the time period.

Cross-sectional dependence on panel data was analyzied by the Breusch-Pagan (1980) LM test. This test is suitable for heterogeneous models with low unit number (N) and long time period (T). The calculation of the LM test statistic is as follows:

$$LM = T \sum_{i=1}^{N-1} \sum_{j=i+1}^{N} \hat{\rho}_{ij}^2 \sim \mathcal{X}_{N(N-1)/2}$$
(2)

Lagrangian Multiplier (LM) test's null hypothesis is H_0 : cov(uit,ujt) = 0 (no cross section dependency). As a result of the findings obtained, which is as a second generation unit root test, the Multivariate Augmented Dickey-Fuller (MADF) panel unit root test that considers the cross-section dependency, was applied (Tatoğlu, 2020).

After deciding on the stationarity of the series, causality analysis can be started, but firstly, the optimum lags of the endogenous variables were checked in order to estimate the panel VAR, and then the GMM coefficients were estimated within the framework of a first-order panel VAR model using the Generalized Method of Moments (GMM) estimation. In addition, the Swamy S test, which is among the homogeneity tests, was applied in the study and the basic hypotheses were established as H_0 : Parameters are constant and do not change from unit to unit, and H_1 : Parameters are not constant, but change from unit to unit (Tatoğlu, 2020). Then, by using Dumitrescu and Hurlin's (2012) causality test, the causality between the variables was analyzed. In this test, Dumitrescu and Hurlin (2012) used Znhc ($Z_{N,T}^{Hnc}$) statistic, which has an asymptotic distribution when N<T, that is, when the cross-section dimension is smaller than the time dimension, considers the Ztild (Z_N^{Hnc}) statistics with a semi-asymptotic distribution. These tests were calculated as shown in equations 3 and 4:

$$(Z_{N,T}^{Hnc}) = \sqrt{\frac{N}{2K}(W_{N,T}^{Hnc} - K)}$$
(3)

$$(Z_N^{Hnc}) = \frac{\sqrt{N} \left[W_{N,T}^{Hnc} - N^{-1} \sum_{i=1}^{N} E(W_{i,T}) \right]}{\sqrt{N^{-1} \sum_{i=1}^{N} Var(W_{i,T})}} \frac{d}{N, T \to \infty} N(0,1)$$
(4)

In the next stages, the stability of the Panel VAR was checked, and the study was completed by performing an impulse response analysis, which measures the response of one of the variables to a positive shock in the other variables, using Monte Carlo (MC) simulations based on confidence intervals, and a prediction error variance decomposition analysis based on the estimated panel VAR.

4. Findings

Since causality and VAR analyzes are performed with stationary series, the stationarity analysis should be done first. Before the stationarity analysis is performed, the correlation between the units will be tested and appropriate unit root analysis will be performed according to the findings obtained. Testing whether the cross-sectional dependence exists is important for the selection of the unit root test (Tatoğlu, 2020).

| Test | Stat | p-value |
|---------|---------|---------|
| LM | 194.4 * | 0.0000 |
| LM adj* | 73.83 * | 0.0000 |
| LM CD* | 11.13 * | 0.0000 |

Table 2. Cross-Section Dependence Results

* sign denotes 1% significance level

Breusch and Pagan (1980) tested whether the shock affecting a country affects other countries through energy consumption and COVID

cases, since N<T, that is, the cross-section size is smaller than the time dimension and the findings are shown in Table 2.

| | Obs | Lags | MADF | Approx 5% Cv |
|--------|-----|------|----------|--------------|
| ENERGY | 25 | 1 | 66.629 | 30.715 |
| COVID | 25 | 1 | 1025.009 | 30.715 |

 Table 3. MADF Unit Root Test Results

As seen in Table 2, the H_0 hypothesis was rejected and the existence of cross-section dependence was not accepted, since the probability value of all tests was less than 0.05. Afterward, as a result of the findings obtained, as a second generation unit root test, the Multivariate Augmented Dickey-Fuller (MADF) panel unit root test that considers the cross-section dependency, was applied. Table 3 shows the test results. According to the MADF test applied in terms of containing the N<T condition, both ENERGY and COVID variables do not contain a unit root. Since the MADF test statistic for both variables is greater than the critical value given, it was concluded that the H_0 hypothesis was rejected that is, the series were stationary.

| lag | CD | J | J pvalue | MBIC | MAIC | MQIC |
|-----|----------|----------|----------|-----------|----------|----------|
| 1 | .9999674 | 38.6775 | .0001189 | -21.20769 | 14.6775 | .0969613 |
| 2 | .9999769 | 26.66663 | .000807 | -13.25683 | 10.66663 | .9462714 |
| 3 | .9999543 | 11.12034 | .0252444 | -8.841395 | 3.120336 | 1.739845 |

Table 4. Lag Length Selection Criteria

After deciding on the stationarity of the series, causality analysis can be started, but first of all, the optimum lags of the endogenous variables should be checked in order to estimate the panel VAR. Given that Andrews and Lu (2001) proposed selection criteria of three model, the first-order panel VAR was the preferred model. Table 4 shows that the optimum delay length is chosen as one, since the lowest values in the MBIC, MAIC and MQIC information criteria are included in the first delay.

Table 5. Homogeneity Test Results

| Swamy S | |
|---------------------|----------------------|
| chi2(12) = 12119.41 | Prob > chi2 = 0.0000 |

In the next step, to test the parameter homogeneity, as seen in Table 5, the H_0 hypothesis indicating the homogeneity of the slope coefficients was rejected. Thus, it was decided that the slope coefficients were heterogeneous.

Table 6. Panel VAR (1) Coefficient Estimations

| | Coefficient | Standar Error | Z | p-Value |
|-------------------------------|-------------|---------------|-------|---------|
| Dependent variable: ENERGY | | | | |
| Independent variables | | | | |
| ENERGY (1) | .6456328* | .1061895 | 6.08 | 0.000 |
| COVID (1) | .0084714* | .0035165 | 2.41 | 0.016 |
| Dependent variable: COVID | | | | |
| Independent variables | | | | |
| ENERGY (1) | 8.909232* | 1.601146 | 5.56 | 0.00 |
| COVID (1) | .5583198* | .0373021 | 14.97 | 0.00 |

No. of obs. = 168, No. of panels = 7, Instruments: l(1/4). * Significance at the 1% level.

However, the GMM coefficients were estimated within the framework of a first-order panel VAR model. Although Granger causality findings were obtained from the estimation results of the first-order panel VAR coefficients in Table 6, in the next step, Dumitrescu and Hurlin's (2012) test was preferred because it took heterogeneity into account while applying the causality test.

| | K | Z-bar | p-value | |
|-------------------------------------|---|--------|---------|--|
| ENERGY does not Granger-cause COVID | 6 | 6.8309 | 0.0000* | |
| COVID does not Granger-cause ENERGY | 1 | 4.2967 | 0.0000* | |

Table 7. Panel Causality Test Results

According to the consequences of the Dumitrescu-Hurlin (2012) test, as can be seen in Table 7, it can be said that there is a bidirectional causality between the number of COVID-19 cases and energy consumption and for G-7 countries, since the probability values are less than 0.05.

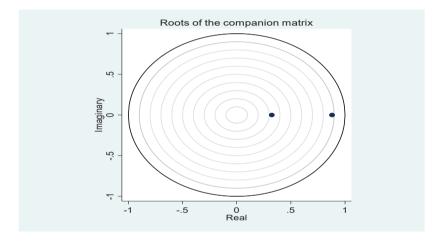


Figure 1. Stability Condition

In order to investigate the Impulse-Response functions or variance decomposition analysis, stability of estimated panel VAR needs to be checked by checking whether all the eigenvalues are in the inner circle. As seen in Figure 1, all eigenvalues are in the circle, which confirms that the estimation results are stable, and thus the impulse response is reliable.

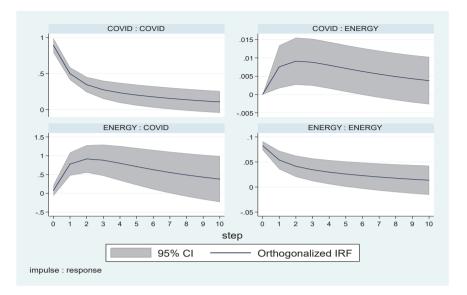


Figure 2. Impulse-Response Functions

With the impulse-response analysis, the response of any of the variables to the positive shocks that will occur in the other variables can be measured. As is seen in Figure 2 that the shocks occurring in the COVID-19 cases increase energy consumption at the beginning (the first two months when the COVID-19 cases started to be seen), but after this period it started to decrease the energy consumption. However, it is observed that although the shocks, which started to decrease, approach the equilibrium value in the long term, they still do not disappear towards the tenth period. On the other hand, it can be said that shocks in energy consumption similarly increased the cases of COVID-19 at the beginning, but declined from the second period.

| ENERGY | COVID |
|----------|---------------|
| | |
| 1 | 0 |
| .9796046 | .0203954 |
| 9723584 | .0276416 |
| | 1 .9796046 |

| Table 8. Forecast-Error V | ariance Decom | position |
|---------------------------|---------------|----------|
|---------------------------|---------------|----------|

| COVID | | |
|-------|----------|----------|
| 1 | .0069709 | .9930291 |
| 5 | .6886745 | .3113255 |
| 10 | .7596272 | .2403728 |

The Forecast Error Variance Decomposition (FEVD) is closely related to impulse-response functions (Wiesen & Beaumont, 2021). Based on the FEVD estimates in Table 8, it can be said that the entire change in energy consumption in the first period was due to itself, and in the tenth period, 97% of this change could be explained by itself and approximately 3% by the COVID-19 pandemic shocks.

5. Conclusion

The novel coronavirus characterized as COVID-19 in January 2020, turned into a global health threat with the rate of spread. As COVID-19, which caused a health crisis in the world, spread, all affected countries resorted to many ways to control the epidemic, while their life forms changed radically. However, the pandemic has caused a decrease in demand in national economies in general, decreases in trade volume and energy consumption. It has been reported that countries such as the USA, England, France, Germany, Italy, Spain and India, which were most negatively affected by COVID-19, experienced large decreases in energy consumption by up to 30%. However, the COVID-19, while contributing to the decline in oil prices and fossil fuel prices by affecting the global energy markets, led to a decrease in Co2 emission. In this context, the relationship between COVID-19 and energy consumption in the G-7 countries, which are developed economies and have a high incidence of COVID-19 cases and are most adversely affected by the pandemic, was investigated. As a result of the analyzes made, the second generation unit root test Multivariate Extended Dickey-Fuller (MADF) was used. After deciding on the stationarity of the series and considering the heterogeneity according to the Swamy S homogeneity test result, a Dumitrecu-Hurlin causality analysis was performed and a bidirectional causality finding was reached between the variables. In the impulse-response analysis, it was found that shocks in COVID-19 cases initially increase energy consumption, but then reduce energy consumption. In the FEVD

estimations, it was found that in the first period, the entire change in energy consumption was caused by itself, and in the tenth period, 97% of this change could be reported by itself and approximately 3% could be explained by the COVID-19 shock. Considering the findings and the effects of the pandemic on the energy sector of the world, it is important to analyze all the effects of the pandemic, taking into account the outbreaks that may turn into a pandemic in the future, in order to be less affected by the pandemic and to be more prepared and resistant. At this point, considering similar pandemics that may occur in the future, it is necessary to complete the infrastructures related to energy, which is one of the important inputs for production, and to make a plan to remove the obstacles in front of energy supply and demand. However, the developments created by the pandemic in the energy sector will lead to a decline in the use of fossil fuels and decline in greenhouse gas emissions, making a short-term contribution to environmental pollution targets, while increasing the weight of policies based on sustainable and renewable energy will make long-term contributions to the goal of reducing global environmental pollution.

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INTRODUCTION

Written in 1950 by Patricia Highsmith, psychological thriller novel, *Strangers on a Train* introduces the duality of personality and identity through main characters, Guy Haines, and Charles Anthony Bruno. One working as an architect and the other inheriting money from his rich family, the two men open their minds to one another and learn about the other's personal aspirations and dreams. Presenting the duality both in character and property, they earn a special place among other popular male characters introduced by Patricia Highsmith such as Tom Ripley and Dickie Greenleaf from *The Talented Mr. Ripley*. Focusing internally to the minds of the characters, Highsmith urges the reader to associate and dissociate themselves with the protagonists and antagonists. Hence, this study aims to contribute to the field by analysing Smith's *Strangers on a Train* as a popular thriller novel and a successful example of American crime fiction by focusing on the theme of duality as displayed through the two main characters, Guy, and Bruno.

After the publication of her debut crime fiction novel, *Strangers on a Train*, in 1950, Highsmith confirms and solidifies her popularity by her other two successful novels, *The Talented Mr. Ripley* and *The Blunderer*, which are published in the late 1950s (Hesford, 2003, 1311). Along with the reputation of her novels, Patricia Highsmith reflects an extraordinary personality and portrays a distinct type of life in her narratives. Despite exhibiting discipline and rigidity in her writings, Highsmith is an alcoholic in her personal life, which is clearly seen in her description of Guy and Bruno in *Strangers on a Train*, who confess their secrets upon getting drunk. In other words, Patricia Highsmith,

was someone who, without protest, would don a skirt (she much preferred carefully pressed pants and a blazer) in order to eat at a good restaurant, but would think nothing of taking her female lover's hand in public. She was, at different times of her life, a communist, a liberal, a Southern segregationist and an anti-Semite. (Hesford, 2003, 1313)

Highsmith is a marginal character. Thus, her writings are products of a very imaginative but realist mind. She depicts the doom and gloom of the post-war American life and the dark secrets of human beings: "you don't come to Patricia Highsmith for goodness or light or comfort. You come to her for uncanny observations about human depravity; you come to her because you've forgotten the sour taste of fear" (Machado, 2021).

In her narrative style, the use of double personalities and her interest in the amoral and abnormal are inspired from writing styles of Edgar Allan Poe and Fyodor Dostoyevsky. Likewise, her concept of sexuality as something "fluid" and unstable is adapted from Gide, Proust, and Graham

Greene (Hesford, 2003, 1314). Furthermore, she portrays the American life in a pessimistic way, which might explain the harsh reaction she receives from critics. In other words: "She wasn't nice... Plain speech was her usual style, and what she didn't see was the way other people pictured the world. So, in the acid bath of her detail-saturated prose she developed her own image of an alternate earth-Highsmith country" (Levay, 2012, 402). Besides, her protagonists are often men who are sociopaths or psychologically disturbed people and murderers. They are mostly attracted to transgression, rebellion, and a final process of transformation. There is also an ambiguous homosexual relationship between these male characters as reflected through Guy and Bruno in Strangers on a Train and the domestic married life is depicted to be something strange and even "threatening" by Highsmith as in the case of Miriam's death in the novel (Hesford, 2003, 1315). Finally, in the world that she creates, the characters confess their feelings and deepest secrets to total strangers as they are drawn to strangers. It is also possible to assert that these characters enjoy "the idea of being strangers" themselves (Trask, 2010, 609).

Therefore, this study aims to conduct a thematic analysis of the novel, *Strangers on a Train*, from the insightful perspectives of the two main characters and depict the collision and reconciliation of dualities between them. Finally, the novel's significance as American crime fiction in comparison to British detective fiction is to be highlighted.

2. THE ISSUE OF IDENTITY IN THE NOVEL

Before the analysis of the main characters with the focus on their identity, it would be apt to discuss the plot of the novel briefly. At the beginning of the novel, architect Guy Haines meets wealthy Charles Bruno on a train to Metcalf, Texas by coincidence and they get to know one another throughout the journey. Drinking alcohol during their conversation, they confess the personal details of their lives to one another. Bruno, who seems to have a more free-spirited and extraordinary personality learns from Guy that he wants to divorce his wife Miriam, who has cheated on him with another man, got pregnant but she refuses to be divorced and that Guy wants to marry Anne, a woman from an upper-class family. On the other hand, Bruno tells Guy about his parents, his mother whom he is highly fond of and his father whom he hates for his strict attitude towards him. Considering this mutual confession as a part of the dialogue that might take place between two strangers who have met on a train, Guy does not foresee the possible outcomes of it until Bruno makes an offer to him. He proposes that they will swap murders through which both can kill a person the other wants dead and they will not be suspected of anything because they are only two strangers on a train with no motive to kill the relative of the

other. Thus, Bruno thinks they can both get rid of their burdens, Guy can ascend to aristocracy through his marriage to Anne while himself can live free of his father's contemptuous attitudes towards him. However, Guy does not take Bruno's words too seriously and leaves the train in haste. Yet, he realises the severity of the problem only when he hears about his wife, Miriam's mysterious death when he is on vacation in Mexico with Anne. In the following weeks, Bruno sends anonymous letters to Anne and threatens Guy to expose their so-called arrangement to his friends and Anne, his aristocratic-soon-to-be-wife and to report him to the police as the murderer of Miriam. After confronted by Bruno once more when he is around Anne and his friends, Guy is eventually convinced to carry out the part of the plan on his behalf. He takes the train to Long Island and murders Bruno's father at his house. Afterwards, even though he has committed the arranged murder, he keeps seeing Bruno. One day, while they are arguing on the boat and Bruno is drinking heavily, he falls into the sea and gets drowned despite Guy's attempts to save him. After Bruno's death as well as the previous two deaths, Guy feels consciously disturbed and tells everything to Miriam's ex-lover, Owen but Owen does not blame Guy for his illegal actions. Meanwhile Gerard, who is a detective investigating the death of Bruno's father, overhears their conversation and interrogates Guy. Finally, Guy professes his crimes and gets arrested.

When Guy and Bruno are focused internally with Highsmith's "narrative technique of focalisation," their distinct as well as similar traits are displayed to the reader in terms of character, property (wealth), class and conscience (Giroux, 2013). As a product and reflection of the Post-war American society, Guy Haines is a middle-class architect yearning for upward mobility through his professional talents and his relationship with Anne. He tries to achieve a successful "self" and a satisfactory image because he is from the middle class, in other words, ordinary and "classless" (Lukin, 2010, 21). In comparison to the strange and sociopathic Bruno, Guy appears to be a likeable and more psychologically balanced character and is presented as the protagonist to the reader at the beginnings of the novel, long before the murder takes place. Even his name, Guy, suggests that he is an ordinary man, just like everyone else who might come across with evil-intentioned people. Furthermore, Guy is critical of his clothes and appearance and is in dire need of an instant change in his social status. He searches for a new identity and class. However, his wife Miriam, who is from the low culture, is an obstacle before his ascension in the social ladder for she is pregnant with another man's child and refuses to divorce Guy. All these eventually cause his failure both in the workplace and in his personal affairs. Even once he is obliged to turn down a project which would bring him fame and success in the field of architecture only because Miriam mindlessly insists to be around him during the project (43).¹ He feels hatred and disgust for Miriam when he thinks and talks about her: "She's everything that should be loathed, … And the fact that I once loved her," Guy added, "loved all of it, makes me ill" (52).

Therefore, Bruno offers him a solution which could indeed serve to his plan of social ascension and holds the potential to relieve him from all his material and psychological burdens. It may be the solution he has sought recently in his life. Encouraged by Guy's confused and indecisive state of mind, Bruno instantly makes him the offer of "double murder" because as he articulates, such a productive and hardworking person like Guy should be free from his burdens. At the same time, Guy feels sympathetic towards Bruno's freedom in "speech" and behaviours (48). Still, he is not such a free man himself. He is overly concerned about the issues of class and property. He is also a possessive man thinking of "his" Anne, her past that she has spent in different countries without him and even his Plato book that he forgets in Bruno's room on the train in his haste (36). In other words, he has his "own world," his republic that he keeps separate from other people (Lukin, 2010, 27). However, he can indeed identify himself with Bruno, especially after he kills his father. He has the feelings of a cold-hearted murderer and wonders how Bruno felt in his murder. After that incident, he gets detached from Anne as it is described in the novel: "An actual repulsion against her clinging, her concern, even her clear, gentle voice that had before been like an embrace itself . . ." (142). Even though Anne has been an intermediary force between the two men previously, after her pregnancy and doubts regarding the evil side of Bruno, she forces Guy to isolate himself from Bruno. Yet, she fails in her attempts since Guy feels a strange attraction to Bruno as if they are the two complementary parts of a whole. At the end of the novel, despite that he has lost his wife, Miriam, and Bruno and got rid of the possible charges of murder afterwards, Guy cannot find relief in his life. Anne is pregnant and Guy can have a happy family life in material prosperity from then on. Nevertheless, he has been so dependent on Bruno for the recent part of his life that he has seen him almost like a brother and his other self. Thus, he confesses his crime to Owen the longshoreman in his guilt and gives himself away to the police, causing his very own downfall (Lukin, 2010, 37).

Likewise, Charles Bruno is described as the opposite of Guy Haines as a "maniacal momma's boy obsessed with murder" (Giroux, 2013). Through Guy's lens, the reader sees Bruno as a man of average age, appearance, and intelligence. Then, Guy thinks of Bruno as, "He seemed only a voice and a spirit now, the spirit of evil. All he despised, Guy thought, Bruno represented. All the things he would not want to be, Bruno was, or would become"

¹ References to the novel will be made only with page numbers.

(33-34). From his quick change of topics in their conversation on the train and his keen interest in Guy's personal life, Bruno displays an unstable and impatient personality. From the moment he has met Guy, he understands that Guy needs help to move on with his life. In their conversation, it is clearly observed that Bruno has a plan on his mind while Guy asks him the question: "What do you want?" "Something" (21). Thus, Bruno offers Guy "freedom from the related restraints of class and conscience" (Lukin, 2010, 25). He is after a "pure murder" without personal reasons (60). On the other hand, he is contemptuous to his father as he allows low wages to his workers at the factory, and he is ashamed of Bruno since he lives a comfortable life without working unlike his father. His father would indeed like a hardworking man like Guy, as Bruno suggests in the conversation. In contrast with Guy, Bruno tries to find a classless society and he feels a kind of sympathy towards the working-class people who earn their living in the hard way. Also, Bruno is deeply attached to his mother, and he despises his father through "Oedipal" instincts (Lukin, 2010, 25). He likes Guy as he is a capable and working man, just like the son his father wants to have. Hence, displaying a lawless and conscienceless character in the compartment conversation, Bruno takes Guy's interest. After he sees Miriam and finds her too ugly and lowly for Guy, he strangles her and fulfils the terms of the agreement on his side. Soon after this, he follows Guy and leaves notes to remind him of the arrangement. However, even after Guy kills his father, he cannot leave him alone. Indeed, he has become a part of Guy's life, presented himself to the people around Guy as his close friend and brother. When they are separately interrogated by detective Gerard for the death of Bruno's father, Bruno thinks: "Who else was like them? Who else was their equal? He longed for Guy to be with him now. He would clasp Guy's hand, and to hell with the rest of the world! Their fears were unparalleled!" (167). Then again, he enters Guy's home and spends too much time with him and Anne. He has very complicated, obsessive, and queer feelings for Guy that he once tells Anne he could do anything for Guy, and he even considers of "strangling" Anne as he did with Miriam so that he could be with Guy forever (251). Finally, he gets drunk and quarrels with Guy on a boat and eventually dies by drowning. However, his dramatic influence on Guy's life permeates as Guy cannot fulfil himself or enjoy what he has achieved in life after Bruno's death. Even though he has a chance to realise his dreams of moving up in the social ladder and becoming wealthy through his relationship with Anne, he throws everything away and brings his own demise after losing Bruno. Therefore, through the characters of Guy and Bruno, Patricia Highsmith present the reader a problem of identity through the differences in their personality, property, and pursuits and how the distinctions are reconciliated once they begin to like one another and turn into what the other is like. They have become so inseparable after the murders they have committed as per their arrangement that Guy cannot pursue a normal life after losing his double in identity, Bruno.

3. *STRANGERS ON A TRAIN* AS AMERICAN CRIME FICTION

Representing the sub-genre of the crime fiction and the thriller genre, *Strangers on a Train* is a psychological thriller novel depicting the inner conflicts of the major characters and bringing forth heroes as well as antiheroes for the reader's inspection through the depictions of their transgressive, unstable, and exemplary state of transformation. The reader gets into the minds of Guy, Bruno, their mothers, Anne, and detective Gerard so deeply that the background of the future incidents might be comprehended in advance. Therefore, this work of crime thriller is based upon "the psychologies of characters" (Scaggs, 2005, 107).

Besides, the novel can be depicted as noir fiction in that it has protagonists who are either victims or the murderers, but certainly not the detectives or police officers unlike many hard-boiled crime fictions present. Noir novels mostly describe "corruption and crime" of the American society (Fanning, 2011, 15). The word "noir" is first used by the French people to describe the eighteenth-century English Gothic novel. Later, it is associated with American hard-boiled novels in the modern age, and it booms in the 1950s that coincides with the publication year of Highsmith's novel (Tuttle, 2012). However, fiction noir has a much darker atmosphere than the hard-boiled fiction of the time. Also in fiction noir, the protagonist is persuaded by a comparably more vicious or corrupt character to commit a crime, which recalls Bruno's lure of Guy into killing his father, Senior Bruno. Besides, it is pointed out that in fiction noir, "sexual" relationships between the characters form an important basis for the crime and the motives of the criminals, which is also underlined through Guy and Bruno's suggested homosexual relationship and Miriam's sexual cheating of Guy and the resulting murder of her (Tuttle, 2012). It can be asserted that although it is hard to define fiction noir, it has obvious characteristics: "... crime novels that center on a greed, envy, or general subversion of the cultural expectation of society exhibit darker characteristics and focus on the negative image of humanity and his wiles" (Fanning, 2011, 16)). Finally, the narrative style of the fiction noir is direct, solid and realist as exemplified with Highsmith's unique writing style.

Similarly, *Strangers on a Train* is an American crime novel and has different characteristics when compared to British detective fiction novels. In Highsmith's novel, crime is embedded within life whereas the British detective fiction introduces crime as an aberrance and abnormality that threatens and disrupts the balance of the daily life. Through Bruno, who

is a character free of conscience and the abiding laws, American crime is depicted within the normal flow of life (Mark, 2012). Detective Gerard gets suspicious of Bruno when captain, a friend of the Bruno family and the former husband of Bruno's mother, dies mysteriously, which suggests Charles Bruno's involvement in the crime prior to his murder of Miriam as he is known to begrudge the man before his death. Likewise, Bruno arranges the death of his father and forces Guy to commit the crime by providing him with the plan of his house and leaving the back door open for him. In the case of Guy, the crime also becomes a part of his life as he kills Bruno's father for social advancement through Anne and keeps the secret of Miriam's death. However, he feels guilty and gets disturbed by the thought of crime as a part of his new life that he confesses his crimes to Owen in the end. Also differing from the British detective fiction which places the crime and murder upon bad people, American crime fiction brings forth victims, neither good nor bad characters, murdered for unclear reasons as depicted in the novel with Miriam, Mr. Bruno, and the captain.

In addition, the major characters of the American crime fiction have a kind of addiction to alcohol, drugs and night entertainment as commonly seen in the post-war American society with their loosened values and disillusionment with the institutions and "the class discord" (Fanning, 2011, 23). In the novel, Bruno has a taste for alcohol, and he dies eventually due to this weak side of his identity. Likewise, the American crime mostly takes place in the urban places unlike the British detective fiction which has the crime in rural areas like villages as seen with Agatha Christie's Mrs. Marple. To illustrate, Miriam is killed in Texas whereas Mr. Bruno and the captain are killed in Long Island. Finally, Strangers on a Train as an American crime novel does not include twists of plot like the British detective fiction does. There are no "ingenious alibis" during the act of murder because Bruno prepares his alibi and leaves the city while Guy is murdering his father (Mark, 2012). Similarly, he kills Guy's wife, Miriam, when Guy is away from Texas. Therefore, the reader confronts no nonsensical details about the crimes. However, professional detective Gerard follows the clues, figures out the friendship between the two strangers, asks the people about the whereabouts of the two men during the time of the crime and studies their behaviours after the crime. Finally, he manages to uncover the secret of the double crimes arranged by a psychologically disordered Bruno. Two strangers who happen to be on the same train for different purposes become murder companions to one another. The train which hosts countless people every day as public transportation and as a common place becomes the meeting place for the arrangement of crimes by completely different characters like Guy and Bruno, who are from distinct classes, psychologies, and personalities. Therefore, Highsmith creates the

atmosphere of her novel in the daily life of the Americans but turns it into a scene for violent crimes afterwards. Affected by the post-war atmosphere of the age and the changing economic and social conditions in real life, Highsmith is "aware of the apathy a big proportion of the society retreated in" (Çetiner, 2020, 229) and describes a society which is surrounded with crime and murder. However, the justice is brought to the chaotic lives of the two Americans and their families at the end by detective Gerard, who works meticulously since the captain's death to catch the guilty ones.

4. CONCLUSION

In brief, Patricia Highsmith changes the focal point from one character to another in her novel Strangers on A Train and displays their different mind-sets to the reader. It is through this technique that the similarities and the differences between Guy Haines and Charles Bruno can be discovered and the overlap of their identities in certain points of the plot can be seen. It is in this fiction noir and psychological thriller that Highsmith narrates the negative and pessimistic sides of post-war American life: an ordinary American man like Guy is turned into a murderer by a rich sociopath, Bruno and from then on, they have great influence upon the other's psychology as well as feelings. They are presented like the two different pieces of a unified identity, and it is as if they collide in the first place on the train to form eventually a full identity as Guy feels alienated after Bruno's death in the end. So, Highsmith brings about a different dimension to the American crime fiction through her employment of the fiction noir and the psychological thriller, which not only creates a dark atmosphere for the crime but also reflect the unstable and confused minds of the characters to form a basis for the crime. Hence, Strangers on a Train impacts its readers through the intelligently woven elements of crime fiction and the overlapping of identities presented in doubles.

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