



Uluslararası İlişkiler ve Stratejik Araştırmalar Enstitüsü

*Institute of International Relations and Strategic Research*

# ULİSA: ULUSLARARASI ÇALIŞMALAR DERGİSİ

*ULİSA: JOURNAL OF INTERNATIONAL STUDIES*

Cilt / Volume: 5, Sayı / Number: 2 (2021)

E-ISSN: 2602-3245

## **Mustafa Kürşat Şahiner, Emrah Ayhan, Murat Önder**

Yeni Sınır Güvenliği Anlayışında Yapay Zekâ Yönetişimi: Fırsatlar ve Tehditler  
*Artificial Intelligence Governance in New Border Security Approach: Opportunities and Challenges*

## **Sinan Caner Yamak**

China's Proactive Strategy to Breach the Turn in Global Economic Order: Placing the Belt and Road Initiative in between Globalization and Regionalization Trends  
*Çin'in Proaktif Küresel Ekonomik Düzendeki Dönüşü Aşma Stratejisi: Kuşak ve Yol Girişimi'ni Küreselleşme ve Bölgeselleşme Trendleri Arasına Oturtmak*

## **Adisa Avdić Küsmüş**

Peacebuilding and Education: Post-conflict education reform in Bosnia and Herzegovina  
*Barış İnşası ve Eğitim: Çatışma Sonrası Bosna Hersek'te Eğitim Reformu*

## **Jahidul Islam Sarker, Tariquill Islam, Md. Nazmul Islam, Moshir Rahman**

Connected Academics: Bibliometric and Systematic Review on the Use of Social Media in COVID-19 Research in Bangladesh  
*İrtibattaki Akademisyenler: COVID-19 Araştırmasında Bangladeş'te Sosyal Medya Kullanımına İlişkin Bibliyometrik ve Sistematik İnceleme*

## **Sezin İba Gürsoy**

Turkey-US Relations (2016-2020): Transformation of the Asymmetrical Alliance  
*Türkiye-ABD İlişkileri (2016-2020): Asimetrik İttifakın Dönüşümü*



**ULİSA: ULUSLARARASI ÇALIŞMALAR DERGİSİ**, Ankara Yıldırım Beyazıt Üniversitesi Uluslararası İlişkiler ve Stratejik Araştırmalar Enstitüsü tarafından yayınlanmaktadır. *Ulisa*, yılda iki sayı yayınlanan, uluslararası hakemli akademik bir dergidir. Yayın dili Türkçe ve İngilizce'dir.

Dergide, Uluslararası İlişkiler disiplininin akademik olarak ilgilendiği alanlardaki çalışmalara bilhassa öncelik verilmektedir. Ayrıca İktisat, Siyaset Bilimi, Kamu Yönetimi, Tarih, Hukuk, Antropoloji, Çevre ve Kent Çalışmaları veya uluslararası ilişkilere dair sosyal bir meseleyi ele alan fen ve mühendislik eserlerine de yer verilebilmektedir. Kısaca, *Ulisa*, uluslararası ilişkilerin herhangi bir boyutunu ele alan bütün makalelere açıktır.

*Ulisa*'nın temel yayın ilkesi, nicelikten ziyade niteliği ön plana çıkarmak, Türkçe literatürün zenginleşmesini sağlamak ve disiplinlerarası çalışmayı teşvik etmek üzerine kuruludur. *Ulisa*, açık erişim politikasını benimsemektedir.

**ULİSA: JOURNAL OF INTERNATIONAL STUDIES** is published by Ankara Yıldırım Beyazıt University Institute of International Relations and Strategic Studies. *Ulisa* is a biannual academic journal. The publication languages are Turkish and English.

The articles focusing on the topics which are within the scope of the discipline of International Relations are given priority in the journal. In addition, articles from the fields like Political Science, Economics, Public Administration, History, Law, Anthropology, Environment or engineering which deal with a social dimension of a technical topic can also be published. In other words, *Ulisa* is open to all articles focusing on any dimensions of international relations.

The publication principle of *Ulisa* depends on highlighting quality rather than quantity, contributing to the academic literature in Turkish and encouraging interdisciplinary studies. *Ulisa* supports open access to information.

E-ISSN : 2602-3245  
E-posta / E-mail : ulisa@ybu.edu.tr  
Ağsayfası / Webpage : dergipark.gov.tr/ulisa  
Posta Adresi / Postal Address : Güvenerler Mah., Cinnah Cad., No: 16, 06690, Çankaya Ankara, Turkey.



Aralık, 2021 – December, 2021

#### Editör(ler)

Doç. Dr. İbrahim Demir

#### Yardımcı Editörler

Araş. Gör. Öznur Albayrak  
Araş. Gör. Muhammed Oruç  
Araş. Gör. Gülşen Yılmaz

#### Yayın Kurulu

Prof. Dr. Birol Akgün  
Prof. Dr. Çağrı Erhan  
Prof. Dr. Ersel Aydınlı  
Doç. Dr. Fatih Tayfur  
Prof. Dr. Murat Önder  
Prof. Dr. Musa Kazım Arıcan  
Prof. Dr. Mustafa Kibaroğlu  
Prof. Dr. Mehmet Seyfettin Erol  
Prof. Dr. Sinem Akgül Açıkmeşe

#### Bilim Kurulu

Prof. Dr. Ali Balcı  
Prof. Dr. Barış Özdal  
Prof. Dr. Emre İşeri  
Prof. Dr. Giray Sadık  
Prof. Dr. Hasan Ali Karasar  
Prof. Dr. Hüseyin Bağcı  
Prof. Dr. İrade Bağrova  
Prof. Dr. Mehmet Seyfettin Erol  
Prof. Dr. Mehmet Akif Okur  
Prof. Dr. Mustafa Aydın  
Doç. Dr. Pınar İpek

Dr. Öğr. Üyesi Seçkin Köstem  
Prof. Dr. Senem Aydın Düzgüt  
Dr. Steven Morewood  
Prof. Dr. Şener Aktürk  
Prof. Dr. Şükrü Hanioglu  
Prof. Dr. Tafiğ Necefli  
Prof. Dr. Tayyar Arı  
Prof. Dr. Toğrul İsmayıl  
Prof. Dr. Yaqup Mahmudov  
Prof. Dr. Yusuf Sarınay  
Prof. Dr. Ziya Öniş

Ali Balcı, PhD.  
Barış Özdal, PhD.  
Emre İşeri, PhD.  
Giray Sadık, PhD.  
Hasan Ali Karasar, PhD.  
Hüseyin Bağcı, PhD.  
İrade Bağrova, PhD.  
Mehmet Seyfettin Erol, PhD.  
Mehmet Akif Okur, PhD.  
Mustafa Aydın, PhD.  
Pınar İpek, PhD.

#### Scientific Committee

Seçkin Köstem, PhD.  
Senem Aydın Düzgüt, PhD.  
Steven Morewood, PhD.  
Şener Aktürk, PhD.  
Şükrü Hanioglu, PhD.  
Tafiğ Necefli, PhD.  
Tayyar Arı, PhD.  
Toğrul İsmayıl, PhD.  
Yaqup Mahmudov, PhD.  
Yusuf Sarınay, PhD.  
Ziya Öniş, PhD.

#### Editor(s)

Assoc. Prof. Dr. İbrahim Demir

#### Assistant Editors

Res. Assist. Öznur Albayrak  
Res. Assist. Muhammed Oruç  
Res. Assist. Gülşen Yılmaz

#### Advisory Board

Birol Akgün, PhD.  
Çağrı Erhan, PhD.  
Ersel Aydınlı, PhD.  
Fatih Tayfur, PhD.  
Murat Önder, PhD.  
Musa Kazım Arıcan, PhD.  
Mustafa Kibaroğlu, PhD.  
Mehmet Seyfettin Erol, PhD.  
Sinem Akgül Açıkmeşe, PhD.

## İÇİNDEKİLER | CONTENTS

- Mustafa Kürşat Şahiner, Emrah Ayhan, Murat Önder** 83-95  
Yeni Sınır Güvenliği Anlayışında Yapay Zekâ Yönetimi: Fırsatlar ve Tehditler  
*Artificial Intelligence Governance in New Border Security Approach: Opportunities and Challenges*
- Sinan Caner Yamak** 96-104  
China's Proactive Strategy to Breach the Turn in Global Economic Order: Placing the Belt and Road Initiative in between Globalization and Regionalization Trends  
*Çin'in Proaktif Küresel Ekonomik Düzendeki Dönüşü Aşma Stratejisi: Kuşak ve Yol Girişimi'ni Küreselleşme ve Bölgeselleşme Trendleri Arasına Oturtmak*
- Adisa Avdić Küsmüş** 105-115  
Peacebuilding and Education: Post-conflict education reform in Bosnia and Herzegovina  
*Bariş İnşası ve Eğitim: Çatışma Sonrası Bosna Hersek'te Eğitim Reformu*
- Jahidul Islam Sarker, Tariquill Islam, Md. Nazmul Islam, Moshiur Rahman** 116-132  
Connected Academics: Bibliometric and Systematic Review on the Use of Social Media in COVID-19 Research in Bangladesh  
*İrtibattaki Akademisyenler: COVID-19 Araştırmasında Bangladeş'te Sosyal Medya Kullanımına İlişkin Bibliyometrik ve Sistematik İnceleme*
- Sezin İba Gürsoy** 133-144  
Turkey-US Relations (2016-2020): Transformation of the Asymmetrical Alliance  
*Türkiye-ABD İlişkileri (2016-2020): Asimetrik İttifakın Dönüşümü*

# Yeni Sınır Güvenliđi Anlayışında Yapay Zekâ Yönetişimi: Fırsatlar ve Tehditler

Mustafa Kürşat Şahiner, Emrah Ayhan, Murat Önder

## 1. Giriş

Geleneksel olarak coğrafi anlamıyla kullanılan “sınır” kavramı; siyasal, kültürel, ekonomik ve toplumsal yönleri olan çok boyutlu bir kavramdır. Geçmişten günümüze tartışılan sınır kavramı, özellikle gelişmekte olan bilgi, iletişim, ulaşım ve savaş teknolojileri sonucunda son derece önemli bir hale gelmiştir. Çünkü günümüzde sadece fiziki-coğrafi sınırları ilgilendiren sorunlar değil aynı zamanda siber savaşlar, insansız savaş araçları, internet temelli bilgi kirliliđi ve manipölasyon gibi sınırları aşan ulus ötesi sorunlar ortaya çıkmıştır. Dolayısıyla, dünyanın farklı yerlerinde yaşanmakta olan mevcut sınır çatışmaları dışında sınır kavramı yeni bir boyut kazanarak önemli bir hale gelmiştir (Öztürk ve Bulut, 2017). Sınır güvenliđi, ülkelerin buldukları coğrafyada egemenliklerini devam ettirebilmeleri, politikalarını ve stratejilerini eksiksiz uygulayabilmeleri için oldukça önemlidir. Sınır hatlarında; terörizm, yasa dışı göç, insan ve uyuşturucu ticareti, kaçakçılık gibi tehdit oluşturan ulus ötesi problemler yaşanmaktadır. Özellikle toprak alanı geniş, coğrafi olarak doğal sınırlara sahip olmayan ve komşu sayısı fazla olan ülkeler için sınır güvenliđini sağlamak zor ve maliyetli bir hal almaktadır. Diğer taraftan sınır güvenliđine yönelik tehditlerin artmasındaki bir diğer önemli etken küreselleşmenin devlet sınırlarını aşındıran bir noktaya gelmesidir.

Çözülmesi karmaşık (Köylü ve Önder, 2017), teknik ve maliyetli hale gelen sınır güvenliđi sorununa yönelik yeni politikalar üretebilmek için hükümetler daha etkin yöntemler aramakta ve teknolojik gelişmelerden faydalanmaktadır. Ayrıca, sınır güvenliđinde yapay zekâ kullanımına yönelik bilimsel araştırmalar da yapılmaktadır (Kaur, 2021; Koslowski ve Schulzke, 2018; Pettit, 2018; UNICRI, 2019). Ancak bu çalışmaların sayısı yetersizdir. Bu nedenle, yapay zekânın farklı alanlarda kullanımına yönelik farkındalıđın artırılması için yeni araştırmalar yapılması gerekmektedir. Bu nedenle, çalışmamızda öncelikle sınır güvenliđinde kullanılan geleneksel yöntemler incelenmektedir. Bu bağlamda sınır güvenliđine karşı mevcut tehditler aktarıldıktan sonra hâlihazırda kullanılmakta olan insansız hava araçları, yüz tanıma sistemli silahlar, sınır hatlarına yerleştirilmiş akıllı bariyerler gibi yapay zekâ temelli sistemler incelenmektedir. Çünkü yapay zekâ temelli bu teknolojiler sayesinde devletler boyut deđiştiren ve giderek karmaşık bir hal alan çeşitli sınır güvenliđi tehditlerine karşı koyabilmektedir. Birçok analitik işlemi içeren bu teknolojiler, insan üstü yeteneklere sahip oldukları için büyük ve karmaşık verilerle çalışabilmekte, kendi kendilerini düzeltebilmekte, insani bilişsel aşamaları simölasyon haline getirebilmekte ve karmaşık süreçleri etkili bir şekilde analiz ederek geri bildirim sağlayabilmektedir (Ulaşan ve Ayhan, 2021: 227). Günümüzde sağlık, hukuk, eğitim, ekonomi ve ulaşım gibi birçok alanda kullanılmaya başlanan bu teknolojiler çeşitli avantajlar sunuyor olsalar da, bu teknolojilerin bazı dezavantajları da bulunmaktadır. Örneđin, ABD, Japonya ve AB (Avrupa Birliđi) üyeleri gibi ülkeler bu teknolojiyi geliştirecek yetişmiş uzman ve nitelikli elemanlara ve ihtiyaç duyulan ekonomik imkânlarla sahipken az gelişmiş ülkelerde ise bu durum tam tersidir. Diğer taraftan insanlara ait parmak izi, yüz tanıma, banka ve kişisel bilgiler gibi birçok hassas veriyi kullanan bu teknolojilerin kimlik hırsızlıđına ve siber saldırılara karşı ne kadar güvenli olduđu tartışılmaktadır. İnsan ürünü olsalar da insani yetenekleri aştıkları için bu sistemlerin kullanıcı kontrolünden çıkması mümkündür. Dolayısıyla riskin önlenmesi için bu teknolojilerin dikkatli kullanılması ve denetlenmesi gerekmektedir.

Yapay zekâ sistemlerinin gelişmesi sonucu özellikle sınır güvenliđi noktasında ortaya çıkacak riskler, can ve mal kayıpları gibi durumlarda sorumluluk yapay zekâyâ yüklenemeyeceđi için cezaları kimin üstleneceđi gibi hususlara yönelik (programcılar, karar vericiler veya uygulayıcılar) yasal düzenlemelerin de yapılması gerekmektedir. Bunu gerçekleştirebilmek için yönetim yaklaşımı dođrultusunda mümkün olduğunca çok sayıda paydaşın katılım sağladıđı karar verme süreçlerine ihtiyaç duyulmaktadır. Bu hususta Gasser vd. (2017), yapay zekâ yönetim modellerindeki üç tür zorluđu vurgulamıştır. Bunlar asimetrik bilgi, normatif fikir birliđi ve hükümet uyumsuzluklarıdır. Mevcut politika ve yönetim tartışması büyük ölçüde yapay zekâ ile ilişkili risklere ve zorluklara odaklanmaktadır. Bu tartışmanın sürdürülebilir

kalkınma hedefleri bağlamında topluma önemli katkıları vardır. Gelecekte asimetrik bilgiden arınmış, farklı çerçeveler ve yaklaşımlar arasında birlikte çalışabilirliği sağlayan bir yönetim modeli kurgulanması önem arz etmektedir. Böylece geniş kapsamlı ve toplumsal bir fikir birliğine ulaşılabilir. Sonuç olarak bu çalışmada, avantaj ve dezavantajları incelenen yapay zekâ sistemlerinin kullanımı bağlamında karar vericilere yönelik politika ve strateji önerilerinde bulunulmuştur.

## 2. Sınır Ve Güvenlik

Yeşiltaş'a (2015) göre sınırlar, sadece ülkelerin egemenlik alanlarını belirlemekle kalmayıp bu egemenlik alanlarının sınırsız ve etkin bir biçimde kullanılmasında da önemli bir rol oynamaktadırlar. Bu durum sınır güvenliği olarak da anılmaktadır. Bir ülkenin güvenlik politikalarının belirlenmesinde öncelikle sınırlarında baş gösteren tehditler dikkate alınmaktadır. Bu konuda Laitinen (2003) bir ülkenin hangi çeşit bölgesel güvenlik mimarisine dâhil olması gerektiğini, hangi tehditlerle karşı karşıya olunduğu ve sınır güvenliği politikasını etkileyecek bazı endişeleri incelemiştir. Ona göre, sınırlar ülke güvenliğinde ön cephe olarak kabul edilmektedir. Buradan hareketle sınır, bir bütün olarak genellikle ulusal güvenliğin ve ulusal egemenliğin genel araçlarından birisidir.

Küreselleşme, ülkeler arası artan siyasi, ekonomik ve teknolojik rekabet sınır ve güvenlik anlayışını baştan aşağı değiştirmiştir. Bu nedenle, gün geçtikçe sınır güvenliği ile ilgili geleneksel anlayışlar geride kalmakta ve fiziki sınırlar giderek önemsiz hale gelmektedir. Fakat bu sadece sınırların somut veya fiziki olarak önemini kaybetmesiyle ilgili değildir. Özellikle, Türkiye'nin de içinde bulunduğu Ortadoğu ve Akdeniz bölgesindeki yüksek enerji rekabeti (Önder ve Akıncı, 2019) sınır güvenliğini ve genişliğini daha anlamlı hale getirmiştir. Ayrıca, ülkelerin güvenliğine yönelik, egemenlik haklarını tehdit eden olumsuz durumlar şekil değiştirerek faaliyetlerine devam etmektedir. Yeşiltaş'a (2015) göre sınırlara yönelik ani gelişen ve çok boyutlu kapsama sahip olan çeşitli sorunlar nedeniyle yeni sınır güvenliği hızlı tepki verebilen ve hareket edebilen bir mekanizma ekseninde kurulmalıdır. Bu mekanizmayı hızlı ve etkili bir biçimde sağlamanın tek yolu ileri teknoloji sistemlerini güvenlik önlemlerinde kullanabilmektir. Sınırdaki faaliyetleri gün boyunca eksiksiz takip edebilen yapay zekâ temelli savunma teknolojileri sayesinde sınır güvenliğine yönelik terör faaliyetleri ve illegal geçişler gibi sorunlar yapay zekâ kullanan insansız savaş araç ve gereçleri ile engellenebilecektir. Ayrıca bu teknolojiler ülkelerin sınır hatları olan hava, deniz ve siber uzayda (cyberspace) güvenli alan oluşturabilirler.

### 2.1. Sınır Tehditlerine Yönelik Dünyadan Örnekler

Sınır güvenliği, otoritenin bilgisi ve izni dışında sınırlardaki giriş çıkış hareketlerini engelleme anlamına gelmektedir. Bu doğrultuda sınır güvenliğinin temel amacı yasa dışı insan ve ürün kaçakçılığı, uyuşturucu ticareti, terör gibi sorunların engellenmesi ve denetlenmesidir. Bunun için sınırların öncelikle güvenlik güçlerince korunması ve kontrol edilmesi gerekmektedir. Fakat mevcut güvenlik önlemleri yeterli korumayı sağlamamaktadır (Uzman, 2016). Bu noktada, Türkiye'nin son 10 yıldır Suriye iç savaşından kaynaklı göçmen krizi nedeniyle yaşadığı sınır güvenliği sorunları örnek verilebilir. Öncelikle, Türkiye tarafından Esad yönetiminden muhalefetin taleplerine yönelik birtakım reformlar gerçekleştirmesi istenmiş, fakat bu başarısız olunca güvenlik tedbirlerinin yanı sıra güvenli bölge oluşturulması için Birleşmiş Milletler devreye sokulmaya çalışılmıştır (Yeşiltaş, 2015: 9-10). Tüm bu çabalardan istenilen sonuç alınamayınca ilerleyen süreçte Suriye'nin Türkiye sınırındaki yerleşim yerlerinde DAESH ve PKK'nın uzantısı olan PYD/YPG gibi terör örgütleri hüküm sürmeye başlamış ve bu örgütler Türkiye'nin sınırları için ciddi tehditler oluşturmuştur (Uzman, 2016: 144). Türkiye-Suriye sınırının Türk tarafındaki Sur ve Akçakale gibi ilçelere Suriye tarafından PYD/YPG tarafından taciz ateşleri açılmış, göçmen kimliğinde DEAS ve PYD/YPG terör mensupları Türkiye'ye giriş yapmış, kaçakçılık, illegal faaliyetler artmıştır (Yeşiltaş, 2015: 10). Bu örgütlerin etkisiz hale getirilmesi için Türk silahlı kuvvetleri tarafından belirli aralıklarla operasyonlar düzenlenmiş ve güvenli bir

koridor oluşturulmuştur. Harekâtlar sırasında terör örgütü tarafından sınırdaki yerleşim yerlerine roketli saldırılar düzenlenmiş, can ve mal kayıpları yaşanmıştır (Yeşiltaş, 2015: 32).

Dünyanın birçok bölgesinde farklı şekillerde sınır tehdidi örnekleri yaşanmaktadır. Örneğin, Meksika - ABD sınırı dünyada kitlesel olarak gerçekleşen yer değiştirmelerin en yüksek düzeyde yaşandığı bölgelerden birisidir. Meksika'dan ABD'ye 1965 ve 2015 yılları arasında 16 milyondan fazla Meksikalının göç ettiği tahmin edilmektedir (İlhan ve Canik, 2019). Hatta Meksikalılar dışında, ABD'ye gitmek isteyen başka ülke vatandaşları da bu geçidi kullanmak için önce Meksika'ya gelmektedir. Bu durum ABD için ciddi bir sınır güvenliği problemi.

Benzer bir şekilde, Çin ve Hindistan arasında 1960'lı yılların başından beri oldukça sert bir sınır anlaşmazlığı problemi vardır. Çin ve Hindistan arasında tartışmalı olan toplam 125.000 km<sup>2</sup> büyüklüğünde sınır bölgesi bulunmaktadır. Bu bölüm iki sınır bölgesinden oluşmaktadır (Ayhan, 2016). İlk sınır bölgesi Çin, Hindistan ve Pakistan sınırlarının birleştiği noktada yer alan ve Çin-Hindistan sınırının batısındaki alandır. Çin yönetiminin kontrolünde olup Çin'in egemenlik hakkı olduğunu iddia ettiği bu alan Aksai Chin bölgesi olarak bilinmektedir. Diğer taraftan, Hindistan ise bu alanı Jammu Kashmir'in Ladakh bölgesi olarak tanımlamakta ve bu bölgenin kendi egemenliğinde olması gerektiğini iddia etmektedir. İkinci tartışmalı ve daha geniş olan sınır bölgesi, Hindistan'ın kabul edip Çin'in reddettiği McMahon sınırı ve Hindistan'ın kontrolündeki Arunachal Pradesh bölgesidir. Çin ile Hindistan arasında gerçekleşen 1962 yılındaki savaş sonucunda Çin Arunachal Pradesh bölgesini işgal etmiş ama sonrasında McMahon sınırına geri çekilmiştir. Birçok uzman, Çin'in bu geri çekilme hamlesinin nedenini bu toprakların sahibini Hindistan olarak kabul etmesi olarak yorumlarsa da Çin McMahon sınırını resmi sınır olarak kabul etmemektedir (Das, 2014).

Son yıllarda Sudan ve Etiyopya arasında da ciddi bir sınır anlaşmazlığı hâkimdir. Krizin çıkış noktasında, Etiyopya'nın Amhara eyaletinin kuzeybatısı ile Sudan'ın tarım ekonomisi için stratejik öneme sahip Gedarif eyaleti arasında yer alan El-Faşaga bölgesi bulunmaktadır (Aktaş, 2020). TRT Haber muhabiri Karakurt'un (2021) haberine göre, Sudan Ordusu 19 Aralık 2020'de Etiyopyalı milisler tarafından işgal edilen toprakları geri almak için harekât başlatmıştır. Bundan 12 gün sonra Sudan Dışişleri Bakanlığı'nın 31 Aralık 2020'de yaptığı açıklamaya göre El-Faşaga bölgesi tamamen geri alınmıştır. Etiyopya, Sudan'ın işgal harekâtını büyük bir tepki ile karşılayarak Sudan ordusunu Etiyopya'nın topraklarından geri çekilmeye çağırmıştır. Etiyopya savaş uçakları bölgede sık sık alçak uçuşlar gerçekleştirmiş ve bölgeden vazgeçmek gibi bir niyetinin olmadığını açıkça göstermiştir. Aniden iki ülkenin orduları karşı karşıya gelmeye hiç olmadığı kadar yaklaşmıştır.

Tüm bu örnekler gösteriyor ki dünyadaki devletlerin birçoğu sınırlarıyla ilgili ciddi problemler yaşamaktadır. Bu sorunlar ülkelerin kendi bölgelerindeki egemenlikleri için büyük tehdit oluşturmakta ve ulusal güvenliklerini tehlikeye sokmaktadır. Bu nedenle ülkeler sınırla ilgili krizleri kendi istedikleri şekilde sonlandırmak için hamlelerini karşı tarafı caydırıcı şekilde yapmak istemektedir. Öte yandan bu sınırlar sadece kara sınırlarıyla sınırlı kalmamaktadır. Çünkü bazı ülkelerin denizde karasuları ve her ülkenin havada uçuş bilgi bölgeleri (hava sahası) bulunmaktadır. Bu alanlarda güvenliği sağlamak kara sınırına göre daha yüksek teknolojik gelişmişliği ve milli savunma gücünü gerektirmektedir.

## 2.2. Sınır Güvenliği Sağlayıcı Geleneksel Yöntemler

Geçmişten günümüze ülkeler, sınırlarını birçok farklı yöntemle belirlemeye çalışmış, çağın gereklerine göre farklı güvenlik önlemleri almışlardır. Yıldız vd.'ye (2018: 1) göre sınırlar, "20. yüzyıldan günümüze kadar büyük ölçüde kentsel bir çevrede ve sadece bir şehir ve bir ülkeyi değil aynı zamanda zıt iki ideolojik, politik, askeri, ekonomik ve kültürel bloğu birbirlerinden ayırmak için kullanılmaktadırlar". Önümüzdeki yıllarda sınırların giderek ortadan kalkacağı ve küresel bir dünyanın oluşacağı öngörülmektedir. Buna karşın terörizm, göç, insan ticareti, kaçakçılık gibi güvenlik endişeleri sınırları hala gerekli kılmaktadır (Yıldız vd., 2018). Bu noktada en etkili yöntem olarak ise sınır duvarları kullanılmış ve kullanılmaya devam etmektedir. Çin Seddi, Kuzey

İngiltere'deki Hadrian Duvarı, yakın tarihte Berlin Duvarı bunlara örnek gösterilebilir. Diğer taraftan, Suriye'deki iç savaş nedeniyle Türkiye'ye yönelik düzensiz geçişleri ve terör örgütü mensuplarının sızmalarını engellemek için sınır hattında 20 Ocak 2016'da başlanan 832 kilometrelik 2 metre genişliğinde ve 3 metre yüksekliğinde bir duvar örülmüştür (Ergan, 2021; Sabah Gazetesi, 2020).

Sınır hatlarında sadece duvarlar ile tam anlamıyla bir güvenlik şeridi oluşturmak mümkün değildir. Kilometrelerce aydınlatmalar, gözetleme kuleleri, sınır karakolları ve askeri birlikler bu güvenlik önlemlerini pekiştirmektedir (Yıldız vd., 2018). Tüm bu gelişmelere rağmen yine de sınır güvenlik önlemleri istenilen düzeyde değildir. Önceki askeri ve geleneksel yöntemler artık tek başına ihtiyacı karşılayamamaktadır. Ayrıca ülkeler sınır hatlarında pasifize olmuş askeri birliklerini teçhizat, maliyet ve insan gücü anlamında farklı noktalarda daha etkili kullanmak istemektedir. Bu nedenle ülkelerin savunma teknolojilerinde olduğu gibi sınır hattı güvenliğinde de ileri teknolojilere, yerinden kontrol yöntemlerine ve otonom sistemlere, yani yapay zekâya olan eğilimleri artmıştır.

### 3. Güvenlik ve Savunmada Kullanılan Yapay Zekâ Teknolojileri

Yapay zekânın son 20 yıl içerisinde tahmin edilenden çok daha hızlı bir şekilde yaygınlaştığı görülmektedir. Sağlıkta, ulaşıma ve eğitimden, iletişime yeni nesil kamu politikalarının çoğunda yapay zekâ teknolojilerine yönelik uygulamalar görmek mümkündür (Önder ve Saygılı, 2018; Yıldız ve Uzun, 2020). Son zamanlarda özellikle ülkeler arasındaki düzensiz göç hareketliliği, uyuşturucu ticareti, terörizm ve siber saldırılar nedeniyle oluşan güvenlik endişesi sınır güvenliğinde kullanılan yapay zekâ sistemlerine ilgiyi arttırmıştır. Bu nedenle ülkeler, yapay zekâ gibi ortaya çıkan yeni teknolojileri savunma hizmetlerine ve sınır güvenliğine dâhil ederek stratejik hedeflerine ulaşmayı amaçlamaktadır.

Yapay zekâ uygulamaları, çağdaş yaşamın hemen hemen her sektörünü etkileyen, çarpıcı biçimde gelişen bir teknoloji alanı oluşturmuştur. Çok çeşitli alanları içeren geniş bir kavram olan yapay zekânın net bir tanımı bulunmamaktadır. Literatürde, yapay zekâ ile çalışan teknolojik sistemler genel olarak "insan gibi düşünen, insan gibi davranan, akılcı (rasyonel) düşünen ve akılcı davranan" sistemler olarak tanımlanmaktadır (Atalay ve Çelik, 2017: 158-159; Önder, 2020). Yapay zekâ her ne kadar insan zekâsını taklit etse de yapay zekâ temelli sistemler insani düşünme ve hareketlerini internet, yazılım, yapay sinir ağları, sensörler gibi araçlar üzerinden gerçekleştirmektedir (Sucu, 2019: 205). Dahası, bu sistemler üstün analitik yetenekleri sayesinde insani yetenekleri de aşabilmektedirler. Çünkü yapay zekâ sistemleri, insan zihnini yapay olarak taklit edip, büyük ve karmaşık verileri değerlendirerek en etkili karar vermeyi hedeflemektedir.

Yapay zekânın karşılaştırmalı avantajı, işlenmesi önemli sayıda insan gerektirecek veriyi değerlendirip işleyebilme noktasında sınırsız kapasiteye sahip olmasıdır (Önder ve Ulaşan, 2016). Bu noktada algılama, biliş ve planlama gibi insan faaliyetlerinin taklit edilmesinin çok zorlu bir görev olduğunu göz önünde bulundurarak yapay zekânın geleceğinin umut verici olduğu söylenebilir. Bu fırsat, mevcut tüm verileri zamanında ve en önemlisi kapsamlı bir şekilde değerlendirme yeteneği sağlar, ancak birçok zorluğu da beraberinde getirir. Örneğin, uygulanmakta olan karar verme sürecindeki en büyük kusurlardan biri, belli bir amaç için çalışan yapay zekânın en uygun olan seçimi yapmayı gerekli kılmasıdır. Yani yapay zekânın zamanında ve nispeten tutarlı bir karar verme sürecine duyduğu ihtiyaç, bütünü aksine sadece bir kısmın değerlendirilmesini zorunlu kılar eder. Bu yetersizlik, gelen muazzam miktardaki veriyi özlü ve nispeten kısa bir sürede değerlendirmek için gereken varlıkların (donanım, yazılım vb.) bulunmamasından kaynaklanmaktadır (Kokkalis, 2019).

Ulusal savunma ve daha önce de belirtildiği gibi potansiyel olarak sınır güvenliği, yapay zekâ teknolojilerinden yararlanabilecek sektörler arasındadır. Bu nedenle, hükümetler, yapay zekâ teknolojisindeki güncel gelişmeleri fark etmekte ve yapay zekâ strateji belgeleri ile yapay zekâya öncelik vermektedirler (Ulaşan, 2020). Yapay zekâ sistemleri, süper güçlerin de ilgisini çekmektedir. Örneğin, Çin hükümeti 2030 yılına kadar yapay zekâ alanında egemen olma hedefini



ilan etmiştir. Bunun için yapay zekâ sistemlerine yönelik yürütülen projelere şimdiden milyarlarca dolar yatırım yapmıştır (Schmidt, 2018). Bu projeler, yeni teknolojilerin, özellikle de ses ve yüz tanıma gibi yapay zekâ tabanlı uygulamaların, Çin'in eyaletler arası ve uluslararası sınırlarına girip çıkan insanların izlenmesine ve teröristlerin sınırlandırılmasına katkıda bulunmaktadır. Benzer bir şekilde, ABD Savunma Bakanlığı, yapay zekâ uygulamalarının ülkenin savaş kabiliyetini artıracaklarını gösteren Ulusal Savunma Stratejisi'ni yayınlamıştır (US Department of Defense, 2012). Diğer güçlü ülkelerin yapay zekâ alanındaki bu umut verici rekabeti sürdürmeleri kaçınılmazdır. Son zamanlarda, Fransa, Hindistan, Japonya ve diğer önde gelen ülkeler, savunma sektörü de dâhil olmak üzere çeşitli uygulamalarda yapay zekâ teknolojilerini benimseme niyetlerini ulusal veya uluslararası stratejilerinde dile getirmişlerdir (Şaşmaz, 2018).

### 3.1. Güvenlik Bağlamında Yapay Zekânın Kullanım Avantajları

Sayler ve Hoadley'e (2019) göre mevcut karar verme sistemlerine potansiyel olarak entegre olabilen son teknoloji ürünü yapay zekânın önemli avantajları bulunmaktadır. Her şeyden önce yapay zekâ, çeşitli uygulamaları etkili ve başarılı bir şekilde bütünleştirebilme, nesnelere interneti olarak adlandırılan şeyi geliştirebilme ve dolayısıyla ortak bir ağı paylaşan farklı cihazlar arasında etkili iletişim, etkileşim ve bilgi paylaşımı sağlayabilme yeteneklerine sahiptir. Nesnelere interneti; veri toplama için sensörler (kalp atış hızı monitörleri, PC'lere benzeyen cihazlar vb.) gibi çeşitli öğeleri bir araya getiren, ortak protokol ağları aracılığıyla bağlantılarını geliştiren ve bunları yapay zekâ ile optimize eden bir kavramdır. İkincisi, yapay zekâ çözümleri, mevcut algoritmaları sayesinde yapısal özelliklerinde önemli değişiklikler olmaksızın hem sivil hem de askeri uygulamalar için eşit olarak uygulanabilme avantajına sahiptirler. Üçüncüsü, yapay zekâ nispeten şeffaftır, yani yalnızca belirli bir sisteme uyacak şekilde uyarlanmamıştır. Ayrıca yapay zekâ, karar verme sistemlerinde istatistiksel modeller kullanarak tahminleri doğruya en yakın olacak şekilde hesaplayarak hata payını oldukça azaltır. Bu da savunma ve güvenlik sistemlerinde kullanılacak yapay zekâ sistemleri için önemli bir artıdır.

Yapay zekâ odaklı teknolojileri kullanan karar verme sistemleri, daha titiz ve hızlı değerlendirme yaparak büyük ve karmaşık verilerden yararlanabilmektedir. Bununla birlikte, yapay zekânın mevcut karar verme sistemlerine sağlayabileceği şeffaflık, entegrasyon ve bilgi paylaşımı, onları daha verimli hale getirmektedir. Sınır güvenliğinde kullanılanlar gibi insan kaynaklı komuta ve kontrol sistemleri sağlam ve tetikte olmak zorundadır. Ayrıca, bu sistemler herhangi bir operasyonel ortam değişikliğini algılamak için son derece hassas olmalıdır. Bu nedenle sonraki eylemler için karar vericiye özlü tavsiye niteliğinde raporlar sunmalıdırlar. İnsan hayatı risk altındayken çeviklik ve hareket hızı esastır. Bu kapsamda, yapay zekâ sistemleri, karar vericiye temel bilgileri hızlı bir şekilde değerlendirip ileterek bu alanda karşılaştırmalı bir avantaj sağlamaktadır (Working Group on AI - Artificial Intellegince, 2018: 63; Mehr, 2017: 4).

Yapay zekânın en önemli avantajlarından biri de kullanım hizmetini veren herhangi bir algoritmanın küçük bir değişiklikle tamamen farklı bir görevi gerçekleştirebilecek olmasıdır. Bu da ciddi anlamda maliyeti ve iş yükünü azaltmak anlamına gelmektedir. Askeri savunma ve güvenlik sistemlerine belki de en önemli katkılarından birisi burada sağlanacaktır (Chohlas-Wood, 2020). Bilindiği üzere savunma teknolojilerini araştırmak, geliştirmek ve üretmek oldukça zahmetli bir süreci ve büyük maliyetleri gerektirmektedir. Her otonom askeri araç için ayrı bir yapay zekâ algoritması üretmeden, o aracı küçük bir değişiklikle istenilen seviyeye getirmek önemli bir katma değerdir.

Sonuç olarak yapay zekâ, mevcut veya yeni oluşturulan veri setlerini uygun ve kapsamlı bir şekilde kullanarak verimliliği arttırmaktadır. Ayrıca titiz ve kapsamlı deneyler ve doğrulama süreçleri aracılığıyla güvenilir istatistiksel modellere dayalı olası eylem kalıpları oluşturmakta ve böylece karar verme sisteminin etkinliğini yukarılara taşımaktadır. Buna ek olarak, yapay zekâ, ilgili algoritmalar tarafından üretilen sonuçların verimlilik ve etkinlik seviyesini yükseltmekte,



kaynak tahsisini optimize etmekte, işlevsel maliyetleri düşürmekte ve endüstriyel sektör için yeni gelir fırsatları ortaya koymaktadır (Mehr, 2017: 4). Ayrıca geri bildirim döngüleri yoluyla araştırma ve geliştirmeyi teşvik etmektedir.

### 3.2. Sınır Güvenliğinde Yapay Zekâ Teknolojisi Kullanımı

Egemenlik ilkesi gereği, bir ülke sınırlarını tehdit oluşturan tüm eylemlere karşı korumalıdır. Çünkü ulusal güvenliği etkileyebilecek tüm unsurlar, öncelikle zayıf buldukları sınır hatlarını geçmeyi denemektedir. Birçok sınır bölgesi coğrafi özelliklerinden dolayı derin vadiler, sarp kayalıklar, geniş ve engebeli su yollarına sahiptir. Kaçakçılık, yasadışı göç, terörizm gibi faaliyetler böyle bir coğrafyada geleneksel sınır koruma yöntemlerinden rahatlıkla sıyrılabilmektedir. Bundan dolayı gelişmiş gözetim ve koruma sistemlerine ihtiyaç bulunmaktadır. Bu noktada yapay zekâ, makine tabanlı algoritmaları ve sistemleri sağlayabilecek bir kapasiteye sahiptir. Bu sistemler nesnelere gerçek zamanlı algılayabilmekte, sınır boyunca izinsiz girenleri izleyebilmekte, sınır gözetleme sistemi ve baz istasyonu arasındaki bilgi alışverişini kablosuz olarak sağlayabilmektedir ve gerektiğinde faaliyete geçebilmektedir (Kaur, 2021).

#### 3.2.1. Otonom Hava Araçları: İHA ve SİHA'lar

Silahlı İnsansız Hava Araçları (SİHA) ve İnsansız Hava Araçları (İHA), otomatik veya uzaktan komuta sistemi ile aerodinamik kuvvet kullanarak havalanan, pilotsuz olarak uçurulan ve faydalı yük taşıyabilen hava araçları olarak tanımlanabilir (Hristozov ve Shishkov, 2017). İnsansız hava araçlarına görevlerini yapmalarını mümkün kılan Yer Kontrol İstasyonu (YKİ), Yer Veri Terminali (YVT) ve diğer altyapı birimlerinin eklenmesiyle oluşan yapıya da "İnsansız Hava Aracı Sistemleri" adı verilmektedir (Gertler, 2012). İnsansız hava araçları istihbarattan keşfe, gözetlemeden radyolojik taramaya, kaçakçılık ile mücadeleden mayın aramaya kadar birçok amaçla kullanılmaktadır. En önemli görev alanlarından birisi de sınırların kontrolü ve korunmasıdır.

Bir İHA, diğer sınır güvenliği sağlayıcı yöntemlere göre çok daha etkili avantajlara sahiptir. Herhangi bir sınır geçişini önlemek için kullanılan, sınır ihlalinin sisteme bildiren kablolu bir çit sistemi düşünülebilir. Böyle bir sistem her ne kadar güvenliği profesyonel olarak sağlayabilse de ihlalin yaşandığı bölgeye güvenlik güçlerinin müdahale etmesi vakit alacaktır. Bu süre içerisinde ihlali gerçekleştiren kişi ya da kişiler çoktan yer değiştirmiş olacak ve takipten çıkacaktır. Bu bağlamda insansız hava araçları, özellikle düşük irtifalarda benzersiz görüş açıları sağladıkları için sabit bir kameranın görebileceğinden çok daha fazlasını görebilecek, bir elektronik çitin verebileceği yer tespit bilgisinden çok daha fazlasına ulaşabilecek ve bir insanın devriye gezerken fiziksel olarak kapsayabileceğinden çok daha geniş bir alanı kapsayabilecek konumdadır (Koslowski ve Schulzke, 2018).

İHA'ların, yapay zekâ teknolojisi ile birleştirilmesiyle birlikte, istihbarat becerisi arttırılmış, hata payı en aza indirilmiştir. İHA'nın sensör ve konumlama sistem arızası verdiği durumlarda bu araçların kontrolü yapay zekâ ile otomatik olarak gerçekleştirilmektedir. Bu sayede bilginin güvenliği hatadan oldukça uzaktır. Günün her saati ülkelerin sınırlarını gözetleyen İHA'lar bu akıllı sistemleriyle tüm yasadışı faaliyetleri tespit etmekte ve bilgiyi eksiksiz bir biçimde istasyona aktarmaktadır. Örneğin; Türkiye'nin sınırda ve sınır ötesi operasyonlarda sağladığı başarının ardında İHA ve silahlı müdahalede bulunabilen SİHA'ların ciddi anlamda katkısı söz konusudur. İHA'lar terör gruplarını izleyip koordinatlarını tespit etmekte, ardından SİHA'lar bu noktalara operasyon düzenlemektedir. İnsansız hava araçları etkili oldukları için sınır bölgelerinde gerçekleşecek her türlü illegal faaliyet engellenmektedir (Hristozov ve Shishkov, 2017).

Dünyadan bazı örneklere bakacak olursak, başlangıçta ABD askeri devriyesi için geliştirilen insansız hava araçları, ABD'nin Meksika ve Kanada sınırlarında devriye gezerek uyuşturucu ve insan kaçakçılarını ve yetkisiz sınır geçişlerini izlemektedir (Taş, 2020). Avrupa'nın droneleri ise Avrupa Sınır ve Sahil Güvenlik Teşkilatı için oldukça önem arz etmektedir. Uluslararası çatışma ve iç savaşların sonuçları olarak Akdeniz'de gerçekleşen göçmen dalgasına karşı bu dronelar kullanılmaktadır (Kosłowski ve Schulzke, 2018). İlerleyen aşamada insansız hava araçları ile ilgili etik tartışmalarına sona ermesi, kullanımının yaygınlaştırılması ve gelişiminin devam ettirilmesi beklenmektedir.

### 3.2.2. Yüz Tanıma Sistemleri ve Sensörler

Teknolojik gelişmelerle birlikte biyometrik verilerin güvenlik amacıyla kullanımı ülkelere giriş çıkışlarda yaygın bir şekilde görülmektedir. Suçluların hatasız bir şekilde tespiti zor olsa da vatandaşlara ait kayıtlı resmi veriler sayesinde iyi modellenmiş eşleşme mekanizmaları aracılığıyla sınırlarda ve yurtiçinde suça karışmış kişilerin tespiti yapılabilmekte ve böylece bu sistemler caydırıcı hale gelmektedir (Ceyhan vd., 2018: 748). Yüz tanıma olarak da bilinen bu sistem bireylere ait hassas verilerin güvenilir şekilde elde edilmesini ve eşleştirmesini sağlayan teknoloji ürünüdür (Zhao vd., 2003). Bu sistemler kişinin yüz hatları, göz çevresi, burun yapısı gibi anatomik özellikleri kullanarak yüzün biyometrisini ortaya çıkarmaktadır. Yüz tanıma sistemlerinde bu veriler işlenerek kişinin kimliğinin tespit edilmesi sağlanmaktadır (Koç vd., 2020). Diğer bir ifadeyle, bu sistemler sayısal verilerden oluşan bir görüntü üzerinden kişinin tespitine olanak sağlayan bilgisayar tabanlı sistemlerdir. Bu sistem, bir fotoğraftan ya da video görüntüsünden kişi ve kişilerin tanımlanmasını ya da doğrulanmasını sağlamaktadır (Zhao vd., 2003).

Dünya'da yüz tanıma sistemi benzeri yöntemlerin kullanımı giderek yaygınlaşmaktadır. Örneğin, 2018 yılında Rusya, Dünya Şampiyonası'nda yüz tanıma sistemlerini test etmiştir (Rusya'da Bugün, 2018). Ayrıca, AB'nin biyometrik bilgilerle ilgili geniş bir veri tabanı oluşturma çalışması içerisinde olduğu bilinmektedir. AB, Avrupa çapında geliştirilen bir proje olan iBorderCtrl'nin (Intelligent Portable Control System) açılışını yapmıştır. Bu proje, Macaristan, Letonya ve Yunanistan sınırları arasındaki dört sınır geçiş noktasında hâlihazırda kurulmuş olan yapay zekâ tabanlı bir yalan dedektörü içermektedir (Heaven, 2018). Söz konusu ülkeler AB'ye üye olmayan ülkelerle sınırları olduğu için seçilmiştir. Böylece, iBorderCtrl projesi seyahat eden insanların sınırlardaki güvenlik noktalarından daha hızlı bir şekilde geçebilmesini hedeflemektedir. Sistemde kullanıcılar öncelikle çevrimiçi bir başvuru formunu doldurup pasaport ve benzeri belgeleri yüklemektedir. Ardından sanal sınır koruma memuru devreye girerek bazı sorular sormaya başlamaktadır. Sanal memur ülkeye giriş yapmak isteyen kişilere, "Bavulunuzda ne tür eşyalar var?", "Eğer bavulunu açarsan ve içindekileri bana gösterirsen, gördüklerim cevaplarının doğru olduğunu kanıtlar mı?" gibi sorular sormaktadır (YeniŞafak, 2018). Yolcular bu soruları bir kamera karşısında yüzleri gözükecek şekilde cevapladığı için bu sistem mimikleri sensörler ve yapay zekâ veri tabanı ile analiz ederek notlandırmaya çalışmaktadır (Pettit, 2018).

Tanıyıcı sensörlerin kullanıldığı bir diğer güvenlik teknolojisi, akıllı bariyerlerdir. Gelecekte tüm ülke sınırlarının bu bariyerler tarafından korunacağına dair görüşler kuvvetlidir. Hatta bugün bu bariyerler, Irak ve Kıbrıs'taki sınır geçiş noktalarında gün boyunca güvenliği sağlamaktadır (Göçerler, 2015). Sabit bariyer ve güneş enerjisiyle çalışan mobil "road blocker" sınır güvenliğinde en çok kullanılan güvenlik sistemi olurken, ülkeler ayrıca sınırlarında Anti-Terör "Road Blocker" ve Anti-Terör Mantar Bariyer gibi ürünlere de talep göstermektedir (Stendustri, 2021). Sensörler sayesinde plaka tanınması gerçekleştiren bariyerler, yapay zekâ tabanlı sisteme veriyi ulaştırmakta ve plakanın veri tabanında güvenli bulunması halinde araçlara geçiş izni vermektedir.

### 3.2.3. Otonom Silahlar

Ulusal sınırlarda güvenliği sağlamak için kullanılan bir diğer savunma teknolojisi otonom silah tabanlı sistemlerdir. Burada ortaya çıkan teknoloji robotik bir yapıdan oluşmaktadır. Bu nedenle sistemin kontrolden çıkması, hacklenmesi gibi endişeler dünya kamuoyunu rahatsız etmektedir. Hatta bu konuda 26 ülkeden 116 uzman bir araya gelerek bir mektup yazmış ve Birleşmiş Milletler'i uyarmıştır (BBC, 2017). Mektupta uzmanlar, geliştirilecek olan bu otonom silahlar yüzünden savaşların hiç beklenmedik düzeyde ve hızlı bir şekilde gelişebileceği tehlikesini vurgulamaktadırlar. Çünkü bu silahların kötü niyetli terörist ya da despotların eline geçme ya da hacklenme riski de bulunmaktadır. Bu uyarılara rağmen, Güney Kore şirketi olan Samsung, Kuzey Kore sınır bölgesine otonom bir silah yerleştirmiştir. SGR-A1 adlı bu sabit silah, otonom bir şekilde hedeflerini tespit ederek ateş edebilme yeteneğine sahiptir. Aynı zamanda bu silah, gözlem yapabilme, el bombası atabilme ve sesleri tanıyabilme gibi özelliklere de sahiptir (Binici, 2020).

Kontrolü insan tarafından sağlanan yarı otonom silahlar da mevcuttur. Ancak süreçte insan kontrolü söz konusu olsa da misyonu önceden otomatik belirlenmiş sistemler bulunmaktadır. Sınır hattındaki karakollarda kullanılan "otomatik nöbetçi silahlar" bunun en iyi örneklerinden biridir. Bu sistemler belli bir seviyenin üstünde meydana gelmesi muhtemel arıza ve hasar durumlarında insan operatörlerin sisteme müdahale etmesine ve sonlandırmasına izin verecek şekilde tasarlanmıştır (Özer, 2020).

Tam anlamıyla yapay zekâ ve otonom silahlar çerçevesinde olmasa da sınır güvenliğinde farklı savunma yollarının kullanıldığına dair bu örnekten de bahsetmek faydalı olacaktır. Çin-Hindistan sınırında Çin'in radyoaktif ışınlar yayan bir mikrodalga silahı kullandığı iddia edilmektedir. Mikrodalga silahlar, deri altındaki suyu hedef alarak su moleküllerini ısıtmakta ve 0,6 mil mesafeye kadar hedefte artan miktarda ağrıya neden olmaktadır. Silahların konuşlandırılmasından 15 dakika sonra Hintli askerlerde baş ağrısı, bulantı, kusma şikâyetlerinin olduğu dile getirilmektedir (Milliyet, 2020).

## 4. Sonuç

Her geçen gün teknolojinin insan hayatı üzerindeki etkisi artmaktadır. Bundan 70 yıl öncesinde ilk bilgisayarın ortaya çıkışıyla başlayan süreç insanlık için bugün tam bir teknoloji istilasına dönüşmüştür. 1997 yılında bilgisayar ile insan arasında yapılan satranç maçını bilgisayarın kazanmasıyla da yapay zekâ varlığı güçlü bir şekilde kabul edilmiştir (Menge, 2012). Elektronik sistemlerle kolayca entegre edilebilen yapay zekâ hemen hemen her alanda kullanılmaktadır. Bu alanların başında güvenlik ve savunma sistemleri gelmektedir. Yüz, ses, iris, parmak izi tanıma sistemlerinin yanı sıra insansız hava araçları, otonom silahlar ve akıllı bariyerlerde de kullanım oldukça yaygındır.

Günümüzde, en önemli güvenlik başlıklarından birisi ise sınır güvenliğidir. Terör, yasa dışı göç, insan ve uyuşturucu kaçakçılığı gibi ulusal güvenliği tehdit edici bütün sorunlar sınır hattı boyunca meydana gelmektedir. Bu nedenle devletler sınır güvenliğini sağlayabilecek güncel teknolojik ürünlere sınırsız bütçe ayırmakta, önemli ARGE çalışmaları yürütmektedir. Yapay zekânın avantajları olduğu kabul edilse de ciddi endişeler de bulunmaktadır. İyi ellerde adeta bir hayat kurtarıcı olan yapay zekâ, kötü ellere hizmet ettiğinde ise dünyanın ve insanlığın sonunu getirebilecek potansiyele sahiptir. Bu konuyla ilgili otonom güvenlik sistemleri ve yapay zekâ üzerine uzmanlaşan ülkeler arasında henüz bir mutabakat sağlanamamıştır. Ancak, bu teknolojinin uluslararası hukuki düzen bağlamında bir etik çerçeveye ihtiyacı bulunmaktadır. En korkutucu senaryo, bir savaşta ya da koruma görevi sırasında kullanılan yapay zekâ tabanlı silahların, robotların, süper yapay zekâların, siber saldırı ya da sistem arızası nedeniyle kontrolden çıkarak ölüm makinesine dönüşmesidir. Bu nedenle otonom silah sistemlerinin silahlı çatışma bağlamında olası kullanımı, sivil toplum ağlarının, uluslararası kuruluşların ve özellikle

sivil toplum kuruluşlarının dikkatini çekmektedir. Bu nedenle sınır güvenliği politikalarında mümkün olduğunca çok paydaşın yönetim yaklaşımı çerçevesinde karar süreçlerine katılmaları önem arz etmektedir.

Türkiye'deki yapay zekâ perspektifiyle ilgili bir değerlendirme yapmak gerekirse özellikle savunma alanında ileri düzey çalışmalar yapıldığını görmek mümkündür. Son yıllarda, Türkiye uydu teknolojisi ve insansız hava aracı geliştirmeye ağırlık vererek önemli yatırımlar yapmıştır. Ancak ülkedeki yapay zekâ destekli otonom sistem çalışmaları tüm disiplinler için henüz istenilen düzeyde değildir. Ülkenin jeopolitik yönden bölgesel bir aktör olduğu ve buna bağlı nedenlerden dolayı güvenlik tehditleriyle karşı karşıya kaldığı açık bir gerçektir. Devam etmekte olan Suriye iç savaşı nedeniyle Türkiye sınırlarında son yıllarda yaşanan saldırılar bunun önemli kanıtlarındandır. Buna bağlı olarak Türkiye, güvenlik politikaları başta olmak üzere siber uzay faaliyetleri, medikal çalışmalar, çevre politikaları çerçevesinde yapay zekâyı kullanmayı, geliştirmeyi ve araştırmayı teşvik eden eğitim ve teknoloji politikaları oluşturmaktadır. Bunun için gerekli yasal düzenlemeler yapılarak hukuki eksikliklerin de giderilmesi gerekmektedir.

Sonuç olarak sınır güvenliğinde yapay zekâ sistemlerinin etkili bir şekilde kullanılabilmesi için gerekli yasal altyapı, devlet destekleri (proje, teşvik vb.), bilimsel araştırmaların desteklenmesi ve yapay zekâ sistemlerini tasarlayacak olan uzmanların ve programcıların yetişmesine imkân verecek eğitim sisteminin oluşturulması gerekmektedir. Bunu sağlamak için disiplinler arası bir bakışla tüm alanları kapsayacak bir yapay zekâ dönüşümü ve yönetimi için bir ekosistem oluşturmaya ihtiyaç vardır. Türkiye Cumhuriyeti Cumhurbaşkanlığı tarafından oluşturulan Yapay Zekâ Strateji belgesinin uygulanması için en üst yönetimden başlayarak hem üniversiteyi hem de özel sektörü içine alacak şekilde her alanda yapay zekâ atılımı zorunluluk haline gelmiştir. Böylece, yapay zekâdan kaynaklanan olası hatalar telafi edilecek, sınır güvenliğine yönelik maliyetler azalacak ve mevcut insan ve teçhizatlar başka alanlara kaydırılabilecektir. Dünyada bu alanda gelişmeleri takip etmek ve hatta önceden bazı ilerlemeler sağlamak her ülkenin bekası için elzemdir. Bu bağlamda ülkelerin özellikle güvenlik ve savunma politikalarında yapay zekâ uygulamalarını geliştirmesi ve kullanması en önemli önceliklerinin başında gelmektedir.

## Kaynakça

- Aktaş, T. (2020). Sudan ve Etiyopya çatışmalarına neden olan sınır sorununu görüşecek. Anadolu Ajansı. Erişim: 12.12.2021, <https://www.aa.com.tr/tr/dunya/sudan-ve-etiyopya-catismalara-neden-olan-sinir-sorununu-gorusecek/2084420>
- Atalay, M. ve Çelik, E. (2017). Büyük Veri Analizinde Yapay Zekâ ve Makine Öğrenmesi Uygulamaları. Mehmet Akif Ersoy Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 9(22), 155-172.
- Ayhan, İ. (2016). Çin ile Hindistan Arasında Sınır Anlaşmazlığının Çözümünü Etkileyen Faktörler. Barış Araştırmaları ve Çatışma Çözümleri Dergisi, 2(2), 81-99.
- BBC (2017). Uzmanlardan BM'ye 'Katil Robot' Uyarısı: Pandora'nın Kutusu Açıldıktan Sonra Kapatması Zor Olur. Erişim: 12.12.2021, <https://www.bbc.com/turkce/haberler-dunya-40996679>
- Binici, D. (2020). Otonom Silah Sistemlerinin Yeni Nesil Savaş Üzerine Etkileri: Aramco Saldırısı Örneği. Güney Güvenlik Okulu, Çağ Üniversitesi.
- Ceyhan, E. B., Ceyhan, İ. F., Demiryürek, E. ve Bodur, R. (2018). Akıllı Kimlik Kartlarının Finansal İşlemlerde Kullanımı: Olası Güvenlik Tehditleri ve Alınacak Önlemler. Uluslararası Yönetim İktisat ve İşletme Dergisi, 14(3), 745-760.

- Chohlas-Wood, A. (2020). Understanding risk assessment instruments in criminal justice. Erişim: 12.12.2021, <https://www.brookings.edu/research/understanding-risk-assessment-instruments-in-criminal-justice/>
- Das, S. (2014). "The Sino-Indian Border Dispute: What Role for the European Union", European Institute for Asian Studies Briefing Paper. Erişim: 12.12.2021, <https://eias.org/briefing-paper/the-sino-indian-border-dispute-what-role-for-the-european-union-february-2014/>
- Ergan, U. (2021). İşte Erdoğan'ın Bahsettiği Duvar: Tam 1040 Kilometre Göç Seddi. Hürriyet Gazetesi. Erişim: 12.12.2021, <https://www.hurriyet.com.tr/gundem/iste-erdoganin-bahsetti-duvar-tam-1040-kilometre-goc-seddi-41872859>
- Gasser, U. ve Virgilio, A.F. (2017). A Layered Model for AI Governance. IEEE Internet Computing, 21(6), 58-62. Gertler, J. (2012). U.S. Unmanned Aerial System, Congressional Research Service Report. Erişim: 12.12.2021, <https://webcache.googleusercontent.com/search?q=cache:UDMMQDRFpqAJ:https://crsreports.congress.gov/product/pdf/R/R42136+&cd=2&hl=tr&ct=clnk&gl=tr&client=firefox-b-d>
- Göçerler, B. (2015). Yapay Zekâ Tabanlı Plaka Tanıma İle Bariyer Kontrolü. Trakya Üniversitesi, Yüksek Lisans Tezi.
- Heaven, D. (2018). An AI lie detector will interrogate travelers at some EU borders. NewScientist. Erişim: 12.12.2021, <https://www.newscientist.com/article/mg24032023-400-an-ai-lie-detector-will-interrogate-travellers-at-some-eu-borders/>
- Hristozov, S. ve Shishkov, B. (2017). Usability Assessment of Drone Technology With Regard to Land Border Security. Proceedings of the Seventh International Symposium on Business Modeling and Software Design (BMSD 2017), 216-222. Erişim: 12.12.2021, <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwi0qPC8vN70AhXYSvEDHfuEA4cQFnoECAUQAQ&url=https%3A%2F%2Fwww.scitepress.org%2FPapers%2F2017%2F65292%2F65292.pdf&usq=A0vVaw2dsMVu2d5Nm6xQo4coVXCE>
- İlhan, L. ve Canik, M. E. (2019). Meksika'daki Kartel Savaşları ve Şiddetin Bilançosu Ağır. Anadolu Ajansı. Erişim: 12.12.2021, <https://www.aa.com.tr/tr/dunya/meksikadaki-kartel-savaslari-ve-siddetin-bilancosu-agir/1622067>
- Karakurt, O. (2021). Etiyopya ve Sudan Arasındaki Sınır Krizinin Anatomisi. TRTHABER. Erişim: 12.12.2021, <https://www.trthaber.com/haber/dunya/etiyyopya-ve-sudan-arasindaki-sinir-krizinin-anatomisi-548171.html>
- Kaur, H. (2021). Machine Learning And Border Security. PalArch's Journal of Archaeology of Egypt/Egyptology, 18(1), 3467-3475. Erişim: 12.12.2021, <https://archives.palarch.nl/index.php/jae/article/view/5425>
- Koç, F., Çetli, E. ve Özkoçak, V. (2020). Biyometrik Verilerin Ülke Giriş- Çıkış Noktalarında Kullanılması ile Suç- Geçiş Bölgelerinin Güvenliğinin Sağlanması. Electronic Turkish Studies, 15(1), 447-456.
- Kokkalis, K. (2019). Contribution Of Artificial Intelligence To Border Security, Naval Postgraduate School Master's Thesis.
- Koslowski, R. ve Schulzke, M. B. (2018). Drones along Borders: Border Security UAVs in the United States and the European Union. International Studies Perspectives, 19(4), 305-324.

- Köylü, M. ve Önder, M. (2017). Karmaşıklık Kuramı ve Kamu Yönetiminde Uygulanması: Yalova Kent İçi Ulaşım Hizmetlerinin Dijital Modelleme ve Simülasyonu. Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 22(Kayfor 15 Özel Sayısı), 1707-1726.
- Laitinen, K. (2003). Geopolitics of the Northern Dimension: A Critical View on Security Borders. Geopolitics, 8(1), 20-44.
- Menge, G. (2012). 15 yıl önce bugün bir bilgisayar en iyi satranç oyuncusu oldu. Sabah Gazetesi. Erişim: 12.12.2021, <https://www.sabah.com.tr/teknokulis/haberler/2012/05/11/15-yil-once-bugun-bir-bilgisayar-en-iyi-satranc-oyuncusu-oldu>
- Mehr, H. (2017). Artificial Intelligence for Citizen Services and Government. Harvard Kennedy School. Erişim: 12.12.2021, <https://ash.harvard.edu/publications/artificial-intelligence-citizen-services-and-government>
- Milliyet (2020). Bu silah sadece Çin'de var: Düşmanın dokusunu pişirdi! Erişim: 12.12.2021, <https://www.milliyet.com.tr/galeri/bu-silah-sadece-cinde-var-dusmanin-dokusunu-pisirdi-6357269/1>
- Önder, M. (2020). Yapay Zekâ: Kavramsal Çerçeve. (Ed. İ. Demir) Disiplinlerarası Politika Vizyonu ve Stratejiler (sayfa 91-102). Ankara: Iksad Publishing House.
- Önder, M. ve Saygılı, H. (2018). Yapay zekâ ve kamu yönetimine yansımaları. Türk İdare Dergisi, 90(487), 629-668.
- Önder, M. ve Akıncı, N. (2019). Akdeniz'de Petrol ve Doğalgaz Aramalarının Bölge Enerji ve Güvenlik Politikalarına Etkisi. Uluslararası Kamu Yönetimi Sempozyumu: Uluslararası Siyaset ve Güvenlik Stratejileri, Gaziantep.
- Önder, M. ve Ulaşan, F. (2016). The Impact of Public Administration on Economic Growth: The Case of South Korea. International Journal of Leadership Education and Management Studies, 1(1), 23-43.
- Özer, A. (2020). Savaşlarda üçüncü devrim otonom silah sistemleri. Erişim: 12.12.2021, [https://tasam.org/Files/Icerik/File/Gelecegin\\_guvenigi\\_IGK\\_4\\_EKT\\_\(6\)\\_pdf\\_044826e2-84ec-42dc-9120-232d7e62ebd4.pdf](https://tasam.org/Files/Icerik/File/Gelecegin_guvenigi_IGK_4_EKT_(6)_pdf_044826e2-84ec-42dc-9120-232d7e62ebd4.pdf)
- Öztürk, B. ve Bulut, İ. (2017). Küreselleşen Dünyada Devletlerin Sınır Güvenliği: Uludere Sınırı Örneği, Devlet Doğasının Değişimi: Güvenliğin Sınırları, Tasam Yayınları, Uluslararası İlişkiler Serisi, İstanbul.
- Pettit, H. (2018). Digital border guards with an AI lie detector will interrogate travellers over what is in their suitcase at EU borders in a bid to toughen security. Mailonline. Erişim: 12.12.2021, <https://www.dailymail.co.uk/sciencetech/article-6341801/AI-lie-detector-interrogate-travellers-EU-borders.html>
- Rusya'da Bugün (2018). Metroya Yüz Tanıma Sistemi. Erişim: 12.12.2021, <https://rbg24.ru/news/metroya-yuz-tanima-sistemi-6733.html>
- Sabah Gazetesi (2020). Suriye sınırına 832 kilometre duvar kurulumu tamamlandı, <https://www.sabah.com.tr/hatay/2020/11/26/suriye-sinirina-832-kilometre-duvar-kurulumu-tamamlandi>
- Sayler, K. M. ve Daniel S. Hoadley (2019). Artificial Intelligence and National Security. CRS Report No. R45178, Washington, DC: Congressional Research Service. Erişim: 12.12.2021, [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwio55Glv70AhVGR\\_EDHbrQA5wQFnoECB4QAQ&url=https%3A%2F%2Fcrsreports.congress.gov%2Fproduct%2Fpdf%2FR%2FR46795&usq=AOvVaw2YasVcC0Xz1gbC5Aj\\_2Fdf](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwio55Glv70AhVGR_EDHbrQA5wQFnoECB4QAQ&url=https%3A%2F%2Fcrsreports.congress.gov%2Fproduct%2Fpdf%2FR%2FR46795&usq=AOvVaw2YasVcC0Xz1gbC5Aj_2Fdf)

- Schmidt, C. (2018). Çin haber ajansı yapay zekâyla yenileniyor. Journo. Erişim: 12.12.2021, <https://journo.com.tr/cin-haber-ajansi-yapay-zeka>
- Stendustri (2021). Ülkelerin Sınır Güvenliğini Yapay Zekâ Sağlayacak. Erişim: 12.12.2021, <https://www.stendustri.com.tr/insa-ve-malzeme/ulkelerin-sinir-guvenligini-yapay-zeka-saglayacak-h110738.html>
- Sucu, İ. (2019). Yapay Zekânın Toplum Üzerindeki Etkisi ve Yapay Zekâ (A.I.) Filmi Bağlamında Yapay Zekâyâ Bakış. Uluslararası Ders Kitapları ve Eğitim Materyalleri Dergisi, 2(2), 203-215.
- Şaşmaz, A. (2018). Bazı Ülkelerin Ulusal Yapay Zekâ Stratejileri. Medium. Erişim: 12.12.2021, <https://medium.com/deep-learning-turkiye/baz%C4%B1-%C3%BClkelerin-ulusal-yapay-zek%C3%A2-stratejileri-d9f762759afd>
- Taş, E. N. (2020). Göçün Güvenikleştirilmesi Çerçevesinde Meksika Duvarı Örneği. International Journal of Afro-Eurasian Research (IJAR), Aralık Özel Sayısı, 59-70.
- Ulaşan, F. ve Ayhan, E. (2021). Bilgi ve İletişim Teknolojileri Kapsamında Kamu Yönetiminin Dönüşümü: Kamu Hizmetlerinde Yapay Zeka Uygulamaları. (Ed. Ş. Karabulur), Teori ve Uygulamada Kamu Yönetimi ve Siyaset Alanında Yaşanan Bilimsel Gelişmeler (sayfa 227-250). Ankara: Gazi Kitabevi.
- Ulaşan, F. (2020). Ulusal Yapay Zekâ Strateji Belgeleri ve Değerlendirmeler. (Ed. İ. Demir) Disiplinlerarası Politika Vizyonu ve Stratejiler (sayfa 103-123). Ankara: Iksad Publishing House.
- UNICRI - United Nations Interregional Crime and Justice Research Institute (2019). Artificial Intelligence and Robotics for Law Enforcement. Erişim: 12.12.2021, <http://www.unicri.it/artificial-intelligence-and-robotics-law-enforcement>
- US Department of Defense (2012). Directive 3000.09, Autonomy in Weapon Systems. Erişim: 12.12.2021, [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjZIPDC9970AhXvS\\_EDHbGvBtQQFnoECAIQAQ&url=https%3A%2F%2Fwww.esd.whs.mil%2Fportals%2F54%2Fdocuments%2Fdd%2Fissuances%2Fdodd%2F30009p.pdf&usg=AOvVaw39ns4u\\_eKCfjR0nnK-Hpe](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjZIPDC9970AhXvS_EDHbGvBtQQFnoECAIQAQ&url=https%3A%2F%2Fwww.esd.whs.mil%2Fportals%2F54%2Fdocuments%2Fdd%2Fissuances%2Fdodd%2F30009p.pdf&usg=AOvVaw39ns4u_eKCfjR0nnK-Hpe)
- Uzman, N. (2016). Türkiye'nin Sınır Güvenliği Açısından Suriyeli Sığınmacılar Meselesi. 21. Yüzyılda Eğitim ve Toplum Eğitim Bilimleri ve Sosyal Araştırmalar Dergisi, 15, 135-158.
- Working Group on AI (2018). Mauritius Artificial Strategy. A Report by the Working Group on Artificial Intelligence. Erişim: 12.12.2021, <https://mitci.govmu.org/Documents/Strategies/Mauritius%20AI%20Strategy.pdf>
- Yenişafak (2018). AB'den sınırlara yapay zekâ destekli yalan makinesi. Erişim: 12.12.2021, <https://www.yenisafak.com/teknoloji/abden-sinirlara-yapay-zeka-destekli-yalan-makinesi-3405909>
- Yeşiltaş, M. (2015). İç Savaşa Komşu Olmak Türkiye'nin Suriye Sınır Güvenliği Siyaseti. SETA Analiz, 136, 7-37. <https://www.setav.org/ic-savasa-komsu-olmak-turkiyenin-suriye-sinir-guvenligi-siyaseti/>
- Yıldız A., Soyuluk A. ve Sarıcıoğlu P. (2018). Geçmişten Günümüze Sınır Duvarları. International Journal Of Social Sciences, 6(Özel Sayı), 1-17.
- Yıldız, M. ve Uzun, M. M. (2020). Koronavirüsle mücadelede kriz yönetimi ve kamu politikası yapımı. SETA Yayınları, 165, 25.



Zhao, W., Chellappa R., Phillips J. ve Rosenfeld A. (2003). Face Recognition in still and video images: A literature survey. *ACM Computing Surveys*, 35(4), 399-458.

# **China's Proactive Strategy to Breach the Turn in Global Economic Order: Placing the Belt and Road Initiative in between Globalization and Regionalization Trends**

**Sinan Caner Yamak**

## **1. Introduction**

In less than a decade since the Belt and Road Initiative (BRI) is announced in 2013, an enormous literature investigating different facets of the initiative from various perspectives has arisen in academia. Yet, because of still having been in an early stage in BRI's overall development, and due to its programmatic "fuzziness" led by the Chinese Communist Party's (CCP) direct intention to keep it open-ended and ambiguous, in the literature, a "consensus has not been reached about what is BRI, how it may affect others, and how it may evolve" (Alon et al., 2018, p. 12). Variation among the authors' affiliated disciplinary constraints and some given political/ideological reasonings are also increasing the controversy on BRI. This paper tries to overcome this ambiguity by offering an alternative perspective that considers the BRI in relation to ongoing historical shifts in the global political-economic system.

To summarize, comprehensive analyses on BRI can be roughly grouped into two interrelated streams. The first one is the IR-based approaches examining the initiative's strategic and contextual character with regards to geopolitical power balances. They mostly rely on interpretative methods over the contents obtained from official texts, speeches, and political/diplomatic updates regarding the BRI. The inferred features are generally discussed in terms of CCP's domestic and international policy goals vis a vis the available norms in the current global order. However, due to the abstractness of the scrutinized materials and the arguments' predisposition in line with the author's given rigid stands, the discrepancy among the IR studies on the essence of BRI is somehow inconclusive between the sides. It is usual to encounter sharply contrasting arguments; while some are proposing the BRI as China's "grand strategy" to be global hegemon through establishing a "new world order with Chinese characteristics" (Aoyama, 2016; Rolland, 2017), the others suggest it as a mode of globalization that is based on "non-hegemonic", "connective-leadership" governance integrating with the existing order without challenging it (Andornino, 2017; He, 2017).

The second group consists of (international) economics-leaned studies focusing on dynamics of trade, finance, investments, economic development, and integration in the context of BRI (Cai, 2018; W. Liu & Dunford, 2016; World Bank, 2019). Touching the essence of the initiative, they are pointing out the domestic economic impulses of China in launching the BRI and/or evaluating potential risks and benefits for the developing countries. Chinese economy's "industrial over-capacity problem", which appeared in the aftermath of the global financial crisis, is frequently assumed as the underlying economic driver of the initiative (Holslag, 2017). Many researchers are welcoming China as the new supplier of international public goods to developing and least developed countries, highlighting their chronic infrastructural investment deficit (Cao, 2019; Hui et al., 2021; Xing & Xiaowen, 2020). On the more cautious side, while some are pointing to China's secret "debt-trap diplomacy" intention with the BRI, some others are, at least, warning against the various potential risks worn in individual BRI projects (Gul et al., 2018; Q. Liu, 2020).

At first glance, defining BRI both as China-led new globalization and regional integration project seems to be proper especially considering its global scope and multifaceted content. However, the two groups' investigations are often inferring misplaced, weakly grounded, or exaggerated attributions for the BRI and globalization. In the IR-based studies, the contextual character of the BRI is, in one way or another, defined by geo-strategic intention reading over the contemporary great power competition. Thereby, the debate inevitably gets stuck in the limits of abstract dualities. On the other hand, the studies on the economic impacts of the BRI are generally limited with regional or narrower contexts. The so-far realized economic merits of the initiative are stemming from the infrastructure investments rather than an increase in economic interaction obtained through integration. Therefore, researchers are focusing on particular economic corridors, where an observable development has been achieved, or conducting simulations to

uncover the economic development potential with the BRI (Chen et al., 2021; Rana & Ji, 2020; V. Wang & Merchant, 2021). In their recent work taking the China-Europe Freight Train project as a case study, Chen et al. (2021) claims the BRI as “Epochal Regionalization” in which new regionalism appears as the core stage towards a new globalization turn which will integrate the regions left behind by the previous West-led globalization. Yet, the inferences of these estimates are inevitably prone to be changed substantially by the BRI’s uncertain evolution in time. In order to fill the gap between the BRI’s current level of development and aspired economic integration content, Casas (2018) interprets the BRI in juxtaposing with China’s Free Trade Agreement (FTA) strategy. In fact, the BRI still could not turn to be a multilateral cooperation platform comparable to the current global system although globally it has already exceeded the Silk Road Economic Belt (SREB) and Maritime Silk Road (MSR) and incorporated many countries in an array from Africa to Latin America. It rather stands as a China-centered flexible network where countries engage in bilateral agreements with China individually. For some authors, institutional and economic regional integration might be not intended in the BRI contrary to the common assumptions (Xinquan, 2018, p. 200).

Even though the premises of the abovementioned approaches are not necessarily wrong per se, they are eventually falling short in defining the BRI. The question that should we handle the BRI as a domestically motivated development strategy, a regional integration project to upgrade China’s economic and political position, or an alternative globalization initiative to overcome China’s various domestic and international political challenges cannot be answered appropriately without investigating the nature of shifts in the global economy. Instead of seeking the BRI’s political-economic character in the country’s geostrategic intentions or trying to deduce it from potential future outcomes, a better perspective can be found by examining the initiative with respect to changing trends of globalization and regionalization. For this purpose, as a method, this paper utilizes the literature on globalization and regionalization and defines the BRI in the context of China’s vital need for further economic integration. It is argued that the BRI should be assessed as a proactive strategy of China against changing dynamics in the global economy in accordance with its domestic and international political and economic concerns. It does not exclude the intuitions of the other approaches but tries to include them in a historical perspective. It is suggested that the BRI is a breakthrough attempt of China to breach the changing trend from globalization towards regionalization in the global economy started after the 2008 Financial Crisis. This structural evolution is not exempt from states nor political leaders as actors but occurs over their decisions and political goals as well. Thereby, a special focus on US-China relations should also be placed within the following analysis.

## **2. The Retreat of Globalization**

Brexit, the US-China Trade War, the US’s decreasing support/attendance in international governance organizations and multilateral trade agreements... in the second half of the 2010s, retreat of globalization had been discussed especially over the rise of protectionism and populism and therefore many considered it as a temporary phenomenon. Coming to 2021, it is understood that the effects of the ongoing global pandemic crisis on globalization, pushing the economies to turn inward, will be more permanent as the optimistic U-turn recovery expectations are disproven. Consequently, clearer statements about the end of globalization (or de-globalization) came to be heard more often (Pisani-Ferry, 2021). Today, the notion of the nation-state is on the rise, governments are proposing formerly unthinkable policies like “global corporate tax”, production patterns are shifting from global value chains (GVCs) to local, and international platforms like World Economic Forum are discussing the shape of the world order after the global pandemic with epochal concepts like “great reset”.

Indeed, the downturn of the current globalization wave has started before the global pandemic. Some studies have presented indicators for the current globalization to have reached its peak and already overstretched in their analyses (Livesey, 2018; Z. Wang & Sun, 2021; Witt, 2019). For example, according to Witt (2019), the global foreign direct investment (FDI) flows and

global trade had reached the peak between 2007 and 2011. After the post-crisis recovery boost got over, they had already been declining in the mid- and second half of the 2010s.

### **3. The Relationship Between Globalization and Regionalization**

Even though there is not an agreed definition of globalization all explanations are rolling around the aspects of increasing transboundary connectivity, integration, and interdependence. Each author proposes different periodizations and types of globalization in history. For instance, while Baldwin & Martin (1999) takes Victorian-era (the 19th cc) and current the US-led (the 20th cc) economic periods as two waves of globalization and compares them, Rodrik (2011) suggests three different periods as the ones under gold-standard, Bretton-Woods, and post-1990s' hyper-globalization. Those claiming the BRI as an alternative type of globalization are tending to consider the current age as a new phase. According to Gao (2018), the 4th phase of globalization, which is driven by internet-based integration, has ended in 2013, and since then we are in the 5th wave marked by China-led collaboration through the BRI.

As globalization and regionalization are distinct concepts, both are aiming for connectivity and integration but within different territorial scopes. Generally speaking, globalization has more tolerance and flexibility for a multiplicity of institutions and multilateral relationships under a unitary global governance structure, while regionalization is inclined to organize uniform institutional settings within its specific territory (Yilmaz & Li, 2020, p. 399).

In terms of their mutual relationship, there is not a clear agreement on whether globalization and regionalization are reinforcing or undermining each other. Proponents of contradictory relation between globalization and regionalization are highlighting the emerging "trade diversion" which creates regional "stumbling blocks" and impedes against global trade flows (Mehanna, 2008). A global economy organized as different regional blocks could divide regions as mutually exclusive inward-looking spheres contrary to global integration. On the other hand, those who suggest a complementary relationship between the two argue that regionalization can be a first step in fostering global integration (Wei & Frankel, 1996). Regional integration can overcome the divisions within the regions and intermediate to connect with the global economy more feasibly. However, as stated by others, it is not convenient to define a uniform relationship between regionalization and globalization. Depending on historical context, types of regions, regionalisms, and globalization, the integration process can work in different directions in favor or at expense of each other (Therborn, 2000).

Coming to the globalization's current declining period, recent studies are inferring a process more favoring the former argument supposing an exclusive relationship between the two. It is widely observed that the current falling trend of globalization is happening in a process coupled with a shift towards regionalization. For instance, in their empirical analysis, Wang & Sun (2021) concludes that "localization and regionalization have been filling the vacuum of economic globalization in retreat" (p. 69). Moreover, in his book, *The Levelling: What's Next After Globalization*, O'Sullivan (2019) states that the world economy is in the transition towards a multipolar pattern consisting of three regional blocks of North America, Europe, and China-centric Asia. Agreeing on the same regionalization pattern, Enderwick & Buckley (2020) propose the appearing "more regionally-based world economy" as an opportunity for overcoming the weaknesses of the globe, which led to risky hyper-growth, environmental degradation, and "ineffective responses to global issues", by offering "a better balance between national and international interests", "efficient and resiliency in supply chains, inclusiveness and equity" (pp. 98, 100, 109).

When the BRI is first introduced there was a common perception considering the initiative as a regional project aiming at Eurasian integration. However, geographical scope of the initiative is enlarged extensively over time and a certain emphasis on embracing "globalization" is stated in official documents (NDRC, 2015). Although some level of regional integration is expected among the countries included in the economic corridors of BRI, it requires certain institutional and

organizational development, which are not available in BRI yet. As Yilmaz and Li (2020) noted, China does not have a clear vision or a strategy for regionalism in BRI. Because of this shortcoming, it has the potential to negatively affect East Asian regionalization by endangering available regional institutions. Indeed, this observation is also signaling the shift in China's integration strategy to the global economy. Before, China was participating in previously existing regional organizations and conducting bilateral ties, but BRI offers a new type of integration organization exceeding regions and China is placed at the center linked by bilateral ties. It represents the upgrade from the previous "going-out" strategy to "going-global".

#### **4. China in between Globalization and Regionalization**

The current globalization period has received criticisms for creating losers and since benefits are not distributed equally among countries and within populations (Rodrik, 2019; Wade, 2004). However, it is undeniable that China's economic success in the last decades is achieved thanks to its articulation with globalization. Especially after its acquisition into the World Trade Organization (WTO) in 2001, the integration of China into the world economy escalated so fast and its position in global trade and investment upgraded substantially (Z. Wang & Sun, 2021, p. 75). While export to GDP and international trade to GDP ratios has reached 36% and 64.5% respectively in 2006, the annual economic growth rate rose to two-digit levels and peaked at 14% in 2007 (World Bank). Meanwhile, China's overall foreign reserves and US security holdings increased 10 times. From 2001 to 2008, foreign reserves climbed from 0.2 trillion US\$ to approximately 2 trillion US\$ of which 1.2 trillion are US securities (Z. Wang & Sun, 2021, p. 76). In this period, the net FDI inflows are steadily increased, and China became the second biggest FDI receiver country in 2009 (World Bank). Furthermore, in 2007, the average outward FDI flow growth rate exceeded inward flows and continued to increase in the following years (W. Liu & Dunford, 2016, p. 8).

One most substantial driver of globalization before the global financial crisis was the complementary bilateral economic relationship between the US and China. China's cheap exports were filling American consumer markets and increasing welfare; received dollar payments to China were lending back to the US by buying American bonds and treasuries; American FDI was increasing the production capacity of China and increasing corporate profits in the US. This symbiotic relationship between Chinese export-led growth and the US's overconsumption is named "ChinAmerica" and "Chimerica" by different authors (Ferguson & Schularick, 2007; Jones, 2010). In this period, China took place of Japan and turned to be the major contributor to the American trade deficit. This discrepancy between the two countries has increased even larger in the following years (Sukar & Ahmed, 2019, p. 3). However, the break of this relationship came with the global financial crisis. Meanwhile, China's production capacity has upgraded from labor-intensive to capital and technology-intensive goods. Its trade position turned to be competitive rather than complementary to the US economy.

Along the high growth years, economic development was instrumentalized to maintain the social and political stability securing the CCP elites' legitimacy on the rule. Even before the crisis, Chinese leaders had started to worry about the fragility of the presumed growth model due to its over-dependence on foreign demand and investments (Rolland, 2017, p. 131). In 2008, when the export growth rate turned negative with the global crisis, the Hu-Wen administration well understood the alarming danger of the economic model (Z. Wang & Sun, 2021, p. 75). They unleashed a massive stimulus program including infrastructure and basic industry investments to keep the domestic economy alive. The spurring effect of the recovery program has ended in a couple of years. The growth rate had fallen to one-digit levels below the pre-crisis years when Xi Jinping came to power at the end of 2012. To keep the "new normal", which suppose a slower but sustained growth rate about 7%, Xi declared their aims to transform China's economy to one prioritizing domestic demand and innovation instead of labor-intensive exports and inefficient investments (p.76). Indeed, even during the export boom period after 2001, the trade structure of China has been becoming increasingly more sophisticated and improving on manufacture,

machinery, and transportation equipment goods. According to KWAN's (2013) analysis, especially after 2009, China's comparative advantage is moved from labor-intensive to higher value-added products. While China's complementary relationship with industrialized countries like Germany, the US, and Japan has fallen and improved to be more competitive, at the same time, its competitive relationship with other newly industrializing economies like India and Indonesia has fallen too. In other words, China advanced its production structure and upgraded its position against all its trade partners.

The important turn was the Obama administration's declaration of "pivot to Asia" geopolitical rebalancing policy in 2011. The US started to empower its participation in the region by promoting Trans-Pacific Partnership (TPP) and improving its security ties in Asia-Pacific countries like Japan, India, and Australia. This act was perceived as a threat by Chinese leaders and considered as an attempt to contain the rise of China (Aoyama, 2016, p. 5). In fact, a confrontation from the US had already been estimated by the CCP elites as China becoming more competitive and increasing its economic power. Chinese strategists had been worrying about a possible US naval blockade on China's energy and trade routes. The 80 percent of China's energy imports and trade was moving over the Malacca strait and it was posing a great national security concern for China (Rolland, 2017, p. 133). On the other hand, Chinese foreign policy, including Xi Jinping's term, had long been centered on keeping stable relationships with the US and not directly posing a challenge on the conflicts zones (Aoyama, 2016, p. 4). To overcome the threat of the "Malacca Dilemma", finding alternative transportation routes and diversification of supply was necessary. As famous Chinese strategist Wan Jisi suggested in 2012, the solution was "marching to West-wards" (Jisi, 2014).

In the following years, the Trump administrations declare of trade-war with China revealed this competitive confrontation more clearly. In the literature, this turn is named as the US's "de-coupling" from China in order not to foster the latter's rise and to decrease their interdependencies (Rajah, 2019, p. 2). However, this separation did not happen as a new Cold War in Trump's period since protectionist policies were not targeting only China. Similar restrictions are exposed to the EU as well. Meanwhile, the US withdrew from several multilateral economic agreements and moved to conduct rather bilateral relationships. Hence, an alliance did not emerge to circulate China but there appeared an opportunity for regional integration. Directly or indirectly, the most significant result of the US-China decoupling was the consequent increase in regional integration in East Asia and China's entanglement in it.

After the global financial crisis, the Western economies' demand for East Asia's exports has diminished significantly and stayed almost at the same level since then. In 2007, their demand was the main determinant with 45.4% of East Asia's total exports (excluding China), and coming to 2017, they fell to 36% in total. In the same period, East Asia's (excluding China) demand for its own exports went up from 32% to 40.3%, which supports the arguments considering the region as an "East Asia Factory" (Rajah, 2019). After the global financial crisis, China's demand for East Asian exports has exceeded the US's by 16%. Though the US demand caught China in 2016, during the trade war, Chinese demand surpassed the US again by consisting 20% of total demand for East Asian exports in the region. To summarize, East Asia's intra-regional trade became the main driver of its own export growth and China is integrated substantially into the regional economy in terms of trade.

This picture also confirms the findings of Wang & Sun's (2021) analysis, which is decomposing GVC networks over different trade patterns. They conclude that since 2014 the production activities have been moving from GVCs to local and regional providers. Furthermore, compared with traditional trade networks, simple and complex GVCs are turning to take shape of three separate webs clustered around three distinct poles centered by Germany, China, and the US.

Besides the shifts in the GVCs, a closer look at the demand for China's own exports in total

trade values gives more clear insight. Comparing the demand shares between 2007 and 2017, even though US's and the Western economies total demand for Chinese exports fell from 54% to 48%, they still have the major share and East Asian demand stayed almost on the same level around 21% (Rajah, 2020). In other words, Chinese exports are still reliant on Western buyers significantly. If the current trend of increasing regionalization and retreat of globalization are assumed to continue, East Asia might not be affected much because it already turned to be a more internally driven regional economy in the recent period. But the Chinese economy is still heavily dependent on demands from the US, the EU, and other Western economies as well as the developing world outside of East Asia. If the US' decoupling proceeds, the Chinese economy should inevitably pursue other ways of integration with the rest of the world and enlarge spheres of globalization rather than remaining in a regional block.

## 5. Conclusion

Whether the BRI could generate an alternative globalization or a global governance structure in the future is uncertain for now. Also, to what extent such sort of globalization would have "Chinese characteristics" or would foster China's geostrategic influences in the world will continue to be speculative questions too for some while. However, considering the BRI within the ongoing process from globalization to regionalization, it became clear that China is resisting the inward turn in the global economy by means of the initiative. It enables China to secure its global resource supply and to reach and foster new markets in the developing world for its infrastructural investments and high-value products like 5G networks. At the same time, it helps to block the US's attempts to contain China by opening political cracks on the Western front. In this way, China creates opportunities to continue its economic relations with the European economies that are so vital to sustain its growth and technological advancement. During Joe Biden's administration, the containment strategy of the US became tougher pushing for a Cold War like division in the world. Yet, the EU could not generate a common front in a strong alignment against China despite the US, especially thanks to the hesitancy of South and Eastern European governments that have already received investments and increased their ties with China under the BRI. In that respect, the BRI should be taken as a soft-balancing strategy initiated right on time proactively against forthcoming the US's containment, which is also the driver of the ongoing de-globalization accompanied by increasing regionalization process in the world economy.

## Bibliography

- Alon, I., Zhang, W., & Lattemann, C. (2018). Introduction. In W. Zhang, I. Alon, & C. Lattemann (Eds.), *China's Belt and Road Initiative: Changing the Rules of Globalization* (pp. 1–13). Springer International Publishing. [https://doi.org/10.1007/978-3-319-75435-2\\_1](https://doi.org/10.1007/978-3-319-75435-2_1)
- Andornino, G. B. (2017). The Belt and Road Initiative in China's Emerging Grand Strategy of Connective Leadership. *China and World Economy*, 25(5), 4–22. <https://doi.org/10.1111/cwe.12211>
- Aoyama, R. (2016). "One Belt, One Road": China's New Global Strategy. *Journal of Contemporary East Asia Studies*, 5(2), 3–22. <https://doi.org/10.1080/24761028.2016.11869094>
- Baldwin, R., & Martin, P. (1999). Two Waves of Globalization: Superficial Similarities, Fundamental Differences. In *Globalization and Labor* (No. 6904). <http://www.nber.org/papers/w6904>
- Cai, K. G. (2018). The One Belt One Road and the Asian Infrastructure Investment Bank: Beijing's New Strategy of Geoeconomics and Geopolitics. *Journal of Contemporary China*, 27(114), 831–847. <https://doi.org/10.1080/10670564.2018.1488101>
- Cao, J. (2019). China's Belt and Road Initiative 2.0. *China Quarterly of International Strategic*



*Studies*, 05(02), 233–248. <https://doi.org/10.1142/S2377740019500155>

- Casas i Klett, T., & Serrano Oswald, O. R. (2018). Free Trade Agreements as BRI's Stepping-Stone to Multilateralism: Is the Sino–Swiss FTA the Gold Standard? In *China's Belt and Road Initiative* (pp. 75–93). Springer International Publishing. [https://doi.org/10.1007/978-3-319-75435-2\\_5](https://doi.org/10.1007/978-3-319-75435-2_5)
- Chen, X., Miao, J. T., & Li, X. (2021). The Belt and Road Initiative as Epochal Regionalisation. In *The Belt and Road Initiative as Epochal Regionalisation*. Routledge. <https://doi.org/10.4324/9781003148685>
- Enderwick, P., & Buckley, P. J. (2020). Rising regionalization: will the post-COVID-19 world see a retreat from globalization? *Transnational Corporations*, 27(2), 99–112. <https://doi.org/10.18356/8008753a-en>
- Ferguson, N., & Schularick, M. (2007). 'Chimerica' and the Global Asset Market Boom. *International Finance*, 10(3), 215–239. <https://doi.org/10.1111/j.1468-2362.2007.00210.x>
- Gao, M. H. (2018). Globalization 5.0 Led by China: Powered by Positive Frames for BRI. In *China's Belt and Road Initiative: Changing the Rules of Globalization* (pp. 321–335). Springer International Publishing. [https://doi.org/10.1007/978-3-319-75435-2\\_17](https://doi.org/10.1007/978-3-319-75435-2_17)
- Gul, S., Umer, S., & Malik, M. S. (2018). China's Belt and Road Initiative (BRI): Debt Quagmire or a Ridge Rope for Struggling Economies. *Global Economics Review*, III(1), 62–70. [https://doi.org/10.31703/ger.2018\(III-I\).07](https://doi.org/10.31703/ger.2018(III-I).07)
- He, Y. (2017). China's new role in global governance: Shaping the emerging world order. *China Quarterly of International Strategic Studies*, 3(3), 341–355. <https://doi.org/10.1142/S2377740017500221>
- Holslag, J. (2017). How China's New Silk Road Threatens European Trade. *The International Spectator*, 52(1), 46–60. <https://doi.org/10.1080/03932729.2017.1261517>
- Hui, Z., Qiangming, Y., & Li, N. (2021). BRI Infrastructure Development and Economic Growth. *China Economist*, 16(3), 26–61. <https://doi.org/10.19602/j.chinaeconomist.2021.05.02>
- Jisi, W. (2014). "Marching Westwards": The Rebalancing of China's Geostrategy. In S. Binhong (Ed.), *The World in 2020 According to China* (pp. 129–136). Brill.
- Jones, H. (2010). *CHINAMERICA: The Uneasy Partnership that Will Change the World*. McGrawHill.
- KWAN, C. H. (2013). *Trade Structure of China Becoming More Sophisticated: Changing complementary and competitive relationships with other countries*. RIETI. <https://www.rieti.go.jp/en/china/13060502.html>
- Liu, Q. (2020). *China's One Belt One Road Initiative—A Debt Trap?* [University of Denver]. <https://www.proquest.com/docview/2447505702?pq-origsite=gscholar&fromopenview=true>
- Liu, W., & Dunford, M. (2016). Inclusive globalization: unpacking China's Belt and Road Initiative. *Area Development and Policy*, 1(3), 323–340. <https://doi.org/10.1080/23792949.2016.1232598>
- Livesey, F. (2018). Unpacking the possibilities of deglobalisation. *Cambridge Journal of Regions, Economy and Society*, 11(1), 177–187. <https://doi.org/10.1093/cjres/rsx030>

- Mehanna, R.-A. (2008). Globalization Versus Regionalization: And the Winner Is.... *Journal of Transnational Management*, 13(4), 287–317. <https://doi.org/10.1080/15475770802574485>
- NDRC. (2015). *Vision And Actions On Jointly Building Silk Road Economic Belt And 21st-Century Maritime Silk Road. Belt and Road Portal*. <https://eng.yidaiyilu.gov.cn/qwyw/qwfb/1084.htm>
- O’Sullivan, M. (2019). *The Levelling: What’s Next After Globalization*. PublicAffairs.
- Pisani-Ferry, J. (2021). The End of Globalization as We Know It. *Project Syndicate*. <https://www.project-syndicate.org/commentary/future-of-globalization-national-priorities-international-threats-by-jean-pisani-ferry-2021-06>
- Rajah, R. (2019). *East Asia’s decoupling* (No. 1; Lowy Institute Working Paper). [https://www.lowyinstitute.org/sites/default/files/East Asia%27s Decoupling\\_1.pdf](https://www.lowyinstitute.org/sites/default/files/East%20Asia%27s%20Decoupling_1.pdf)
- Rana, P. B., & Ji, X. (2020). Potential Economic Impact of BRI: A Computable General Equilibrium Analysis. In *China’s Belt and Road Initiative* (pp. 47–69). Springer Singapore. [https://doi.org/10.1007/978-981-15-5171-0\\_3](https://doi.org/10.1007/978-981-15-5171-0_3)
- Rodrik, D. (2011). *The Globalization Paradox: Democracy and the Future of the World Economy*. W. W. Norton.
- Rodrik, D. (2019). Globalization’s Wrong Turn and How it Hurt America. *Foreign Affairs*, 98(4).
- Rolland, N. (2017). China’s “Belt and Road Initiative”: Underwhelming or Game-Changer? *The Washington Quarterly*, 40(1), 127–142. <https://doi.org/10.1080/0163660X.2017.1302743>
- Sukar, A., & Ahmed, S. (2019). Rise of trade protectionism: the case of US-Sino trade war. *Transnational Corporations Review*, 11(4), 279–289. <https://doi.org/10.1080/19186444.2019.1684133>
- Therborn, G. (2000). Globalizations: Dimensions, Historical Waves, Regional Effects, Normative Governance. *International Sociology*, 15(2), 151–179. <https://doi.org/10.1177/0268580900015002002>
- Wade, R. H. (2004). Is globalization reducing poverty and inequality? *World Development*, 32(4), 567–589. <https://doi.org/10.1016/j.worlddev.2003.10.007>
- Wang, V., & Merchant, S. (2021). *China’s Belt and Road Initiative* (C. Ploberger, S. Ngampamuan, & T. Song (eds.); Issue March). Routledge. <https://doi.org/10.4324/9781003055433>
- Wang, Z., & Sun, Z. (2021). From Globalization to Regionalization: The United States, China, and the Post-Covid-19 World Economic Order. *Journal of Chinese Political Science*, 26(1), 69–87. <https://doi.org/10.1007/s11366-020-09706-3>
- Wei, S.-J., & Frankel, J. A. (1996). Can regional blocs be a stepping stone to global free trade? a political economy analysis. *International Review of Economics & Finance*, 5(4), 339–347. [https://doi.org/10.1016/S1059-0560\(96\)90021-0](https://doi.org/10.1016/S1059-0560(96)90021-0)
- Witt, M. A. (2019). De-globalization: Theories, predictions, and opportunities for international business research. *Journal of International Business Studies*, 50(7), 1053–1077. <https://doi.org/10.1057/s41267-019-00219-7>
- World Bank. (2019). *Belt and Road Economics: Opportunities and Risks of Transport Corridors*. Washington, DC: World Bank. <https://doi.org/10.1596/978-1-4648-1392-4>

- Xing, L., & Xiaowen, Z. (2020). Understanding China's "One Belt and One Road" Initiative: An "International Public Goods" Approach. In *The Belt and Road Initiative* (pp. 85–109). Springer Singapore. [https://doi.org/10.1007/978-981-15-2564-3\\_5](https://doi.org/10.1007/978-981-15-2564-3_5)
- Xinquan, T. (2018). Is the Belt and Road Initiative a Chinese-style Regionalism? *Joint U.S.-Korea Academic Studies*, 192–205. [http://keia.org/sites/default/files/publications/jukas\\_3.1\\_is\\_the\\_belt\\_and\\_road\\_initiative\\_a\\_chinese\\_style\\_regionalism.pdf](http://keia.org/sites/default/files/publications/jukas_3.1_is_the_belt_and_road_initiative_a_chinese_style_regionalism.pdf)
- Yilmaz, S., & Li, B. (2020). The BRI-Led Globalization and Its Implications for East Asian Regionalization. *Chinese Political Science Review*, 5(3), 395–416. <https://doi.org/10.1007/s41111-020-00145-2>

# **Peacebuilding and Education: Post-conflict education reform in Bosnia and Herzegovina**

**Adisa Avdić-Küsmüs**

## **1. Introduction**

Conflicts have a devastating impact on education, and their effects go beyond the destruction of infrastructure, schools, and libraries. The psychological impact on students and teachers, and the collective trauma lead to degradation of the education system (Buckland, 2004:1) and pose a serious peacebuilding challenge. The past decade was marked by the growing interest in identifying links between education and conflict and adopting education models that can build resilience to conflict.

This article aims at comparing two approaches to education reform in post-conflict Bosnia and Herzegovina (BiH) – the so-called "two schools under one roof" system that was established in the entity of Federation of Bosnia and Herzegovina (FBiH) and Brčko District model of the integrated multi-ethnic education system. Brčko became the first city to remove physical barriers between students of different ethnicities and place them in mixed multi-ethnic classes. The education reform in Brčko was just one dimension of the multiethnic reform package that was going to initiate the post-conflict transformation, encourage the return of refugees and IDPs, and facilitate the emergence of multi-ethnic environment that was wiped out by conflict. This article will provide a brief overview of the reform process, and address the potential link between the education reform and higher levels of reconciliation.

The article is based on six months of field research in BiH conducted from May to October 2017. The study of links between education and peacebuilding was part of a wider research that aimed at evaluating the success of Brčko District as a potential model for inter-ethnic reconciliation. The field research consisted of close observations of inter-ethnic relations in the District, and pre-arranged semi-structured interviews with the citizens of Brčko District. Interviews were mostly conducted outside in an informal setting (e.g. the garden of the Grand Hotel was a suitable choice because of its central location and because it seemed more neutral than the ethnically divided cafes). I have formally interviewed 43 respondents (24 Bosniaks, 15 Serbs, and 4 Croats) and all interviews were conducted in local languages. Respondents were asked to describe their experience of education in Brčko District with five education-related subquestions:

- Is education in Brčko District different to education in other parts of BiH?
- How do you feel about integrated multi-ethnic schools?
- Do you feel that the topic of war should be avoided in school environment?
- Do you spend time with people from other communities outside the work/school environment?
- Do you think that people in Brčko achieved higher levels of reconciliation than in other parts of BiH?

To minimize the potential interviewer's effect on the level of openness, respondents were encouraged to speak spontaneously with minimum intervention or interruption. The choice of this case study is significant because it provides a valuable insight into two different approaches to education reform, implemented in similar post-conflict conditions (in FBiH and Brčko District).

The close link between education and identity makes education reform one of the most challenging parts of the peacebuilding process. A growing number of studies are highlighting the strong connection between education and the likelihood of achieving sustainable peace in post-conflict societies (Bush-Saltarelli, 2000; Smith-Vaux, 2003; Emkic, 2018). The main goal is to

ensure that 'education does not contribute to the likelihood of relapse into violence and actively builds social cohesion to help prevent violence (Buckland, 2005: 32). Some authors have raised the question of education reform having the potential to worsen the conflict and called for careful consideration when contributing resources to education:

'By asking critical questions about the relationship between education and conflict we can see that education may be deeply embroiled in the conflict. This raises a serious question about whether contributing resources to education could make the conflict worse' (Smith-Vaux, 2002: 19).

In post-conflict societies, education has the potential to play a dual role – it can facilitate development and reconciliation or it can be used as a tool to promote division and prolong the conflict. This dual nature of education has been referred to as "the two faces of education" (Bush-Saltarelli, 2000: vii). The potential negative impacts are best understood in terms of conflict-maintaining features of the educational system that range from promoting negative stereotypes and manipulating history to actual segregation of schools. Education can therefore serve as an impetus for escalating conflict, denying cultural plurality, and encouraging inter-group hostility. On the other hand, "peace education" can help sustain inter-ethnic tolerance, non-violence, and mutual respect. (Bar-Tal & Rosen, 2009).

The first part of the article will provide a brief overview of the two key elements that influenced the education reform in BiH in the post-conflict period: the legacy of the Yugoslav education system and the legacy of inter-ethnic conflict. It will then address the phenomenon of 'two schools under one roof' system that is still widely spread in FBiH despite two decades of peacebuilding. Finally, the article will examine the education reform in Brčko District with particular focus on local perceptions and the day-to-day experience of going to school. This is done in line with the concept of local-ownership of peace process as the key condition to achieving reconciliation and sustainable peace.

## **2. Post-conflict education reform in BiH**

During the war in BiH the education system was seriously disrupted with the vast majority of all schools and universities destroyed or damaged, and libraries burnt to the ground. Moreover, the mass displacement of people and the lack of basic goods and services made it difficult for schools to operate and provide regular education. As Perry (2003: 23) notes, schools in wartime BiH continued operating 'out of sheer determination and improvisation'. One respondent I interviewed described the school conditions during the war:

'During the war, I attended school in the village of Maoca, near Brčko. The classes were held in underground shelters and basements and there were around fifty students in each class. During the winter, we were all required to bring pieces of wood with us so our teacher could light a fire in the fireplace and keep the basement warm. We were mostly just learning to read and write and some basic math, I don't remember having any other lessons until after the war.' (Bosniak, NGO representative, 32, interviewed on July 17, 2017).

In the aftermath of conflict, the international community had a long list of priorities in BiH and the educational reform was not placed at the top of their agenda. In a country, shattered by war, the focus had to be placed on military stabilization, refugee returns, and rebuilding basic infrastructure. None of the international organizations involved in peacebuilding in BiH was given a clear mandate to ensure educational reform. This is why the years following the signing of the Dayton Peace agreement (DPA) were marked by the implementation of many small projects by various organizations that lacked both coordination and a firm mandate.

Although Annex 6 of the DPA briefly mentions 'the right to education', it does not provide any specific instructions on how to implement the educational reform nor does it set any clear timeframe. This explains why it was only in mid-2002 that the OSCE recognized the need to implement more organized and coordinated programs that would target a comprehensive educational reform. Around the same time the Office of the High Representative also organized a conference on educational reform in BiH where the Deputy High Representative, Donald Hays, acknowledged that education reforms were not given the attention they deserved and that both, international and local actors, were late to recognize their importance:

'We are late in tackling this issue, one that should have been viewed as a core issue for BiH post-war recovery and an issue that will definitely influence the success or failure of all our efforts to create a free, democratic and stable BiH.' (Hays, 2002, cited in Perry, 2003:3)

There was an evident struggle between the local actors that understood education as a crucial aspect of the identity-building process and the international actors that saw it as means of overcoming ethnonational divisions and achieving reconciliation. A Peace Implementation Council (PIC) meeting in Bonn in December 1997 emphasized the need to provide education that would 'contribute to tolerance and stability within a multi-ethnic BiH' (cited in Perry, 2003: 47). The reintegration of segregated schools and reconciliation among divided ethnonational groups were among the main goals of post-conflict intervention in BiH (Hromadzic, 2008: 544).

All this was happening in the midst of complex political and constitutional landscape created by the Dayton peace agreement, in which the education system was to be regulated by entity and canton governments. The peace agreement divided the country into two semi-independent entities, and one condominium under international supervision (the Federation of BiH (FBiH), Republika Srpska (RS) and Brčko District (BD)). The entity of FBiH was further divided into ten cantons, and according to the Constitution of FBiH (1995), "*cantons were solely responsible for developing educational policies, including declarations for education, ensuring education, as well as developing and implementing cultural policies.*"

In practice this meant that there were thirteen different authorities in charge of regulating the education reform (the government of the RS, the government of FBiH, ten canton governments in FBiH, and Brčko District). Each entity had an entirely different education policy and in the case of the FBiH each canton implemented its own policy. Moreover, the cantons were allowed to have "special relationships" with other countries, so Croat majority cantons could establish ties with schools in Croatia and the same applied to schools in RS and Serbia (mostly used to import textbooks and teaching materials from these countries) (Šarančić, 2016: 27). So far, practice has shown that individual administrative units have different, sometimes diametrically opposed, concepts of education and that each conducts its own policy (Pašalić-Kreso, 2008). This extreme decentralization together with the fear-dominated political environment made it easy for politicians to manipulate and politicize any step towards establishing an equal, open and fair educational system. The institutional setting allowed the political elites to develop deliberate strategies based on the politics of identity and fear to continue the war by other means in spite of the peace agreement (Perry, 2003: 27).

Apart from the complexity of the transition process, the education reform was also influenced by the communist experience and the education system of the former Yugoslavia. Comparing to other communist countries, the standards and the quality of education in Yugoslavia were relatively high with good access to primary and secondary education. Yugoslavia's leader, Josip Broz Tito, recognized the role of education as a tool to unite people and achieve economic progress but also to promote a certain ideology and worldview. Education was designed to raise socialist awareness and dedication to the political regime as well as to encourage the adoption of shared Yugoslav identity. In an attempt to overcome the nationalist divisions and heavy legacies of WW2 Tito advanced the idea of 'brotherhood and unity' (bratstvo i jedinstvo), and promoted the priority of Yugoslav identity over all other ethnic, national or religious affiliations. The early years of the Socialist Federative Republic of Yugoslavia (SFRY) were marked by growing

industrialization and urbanization as well as heavy investment in education. The education system was subject to ideological control of the Communist party (Spasenovic-Zivkovic, 2010: 217). The years following Tito's death were marked by moving away from 'socialist' to 'ethno-national' schooling (Stabback, 2007: 49) but the education remained the instrument of political control. As part of the wider struggle for political power and territory, the curricula were increasingly politicized and formed cleavages along the ethnonational lines.

### **3. Educational apartheid in BiH: Two schools under one roof**

Two decades after the peace treaty was signed, the conflict continues to overshadow the schools and the education system in BiH. This is especially apparent in the case of the so called 'two schools under one roof' ('dviije škole pod jednim krovom') that were established in the aftermath of conflict. As the name suggests, the system aimed at establishing two different schools with students of different ethnic background attending classes in the same building but at different times and with long breaks in between to minimize contact. The intention was to encourage refugees to return to their homes and grant them a sense of security as well as to bring Serb, Croat and Bosniak schoolchildren closer together by sharing the same spaces. Nonetheless, students followed different curriculums, used different textbooks and some schools even built walls and schoolyard fences to physically separate children of different ethnicities who attended classes in the same shift. Contrary to the goal of bringing children together and improving inter-ethnic relations, the system enabled ethnic segregation and build physical barriers that prevented students from interacting and communicating between each other. This is why the system is sometimes referred to as the 'educational apartheid'.

The 'two schools under one roof' approach initially enjoyed the support of the UN, the OSCE and the US government as it was widely believed that such system was merely a temporary and transitional step towards the final integration of schools and unification of the educational system in BiH. The international community, however, quickly realized that the system had only exacerbated inter-ethnic divisions and threatened to become a permanent feature of the post-conflict institutional design. While the conflict and ethnic cleansing dramatically changed the ethnic makeup of the country, separated communities and 'unmixed' previously multiethnic cities, it was the postwar period and segregated education that institutionalized the division and gave it a degree of legitimacy and justification. Instead of promoting integration and reconciliation, the system had merely reinforced boundaries and inter-ethnic polarization:

Instead of growing up in a culturally diverse and rich society, students are separated from one other, often learning to hate those who are 'different'. Separate curricula, separate languages, separate history text-books, separate alphabets, separate religious studies... (Pašalić-Kreso, 2008: 359)

What was originally conceived as a temporary solution had now become a norm in fifty-seven schools in the Federation (mostly in Central Bosnian, Herzegovina-Neretva, and Zenica-Doboj Cantons). Considering that Republika Srpska was largely mono-ethnic with a small percentage of returnees, the model of 'two schools under one roof' was never widely spread. The needs of minority students in Republika Srpska were generally not accommodated.

In response to what was largely perceived by international actors as the failure of the two schools under one roof model, there were repeated calls to end segregation and reform the school system. All such attempts were blocked by political parties and slowed down by the overlapping and ill-defined competencies of state, entity and cantonal ministries of education. International efforts to 'develop a multi-ethnic learning environment in schools, aimed at reconciliation among ethnic groups', 'remove ethnic segregation from schools' and 'ensure that one curriculum is taught to all children' (UN, 2016: 21-23), were met with local resistance and achieved little progress in reintegrating the schools.



By 2002, the international community was becoming increasingly frustrated with the slow pace of reforms and experiencing a donor 'fatigue' followed by the need to relocate attention and resources to new conflict areas. Determining priorities in such conditions was an enormous challenge and the education reform proved to be a particularly sensitive issue, fiercely resisted and contested by local actors who disagreed with the notion of integrated multiethnic schools.

While education reforms included a wide range of policies, from pre-school to university education, efforts to reform the compulsory primary and general secondary educational programs were their most crucial and the most politicized part. This is not to say that other efforts were not politicized or deny the fact that higher education and academia became ground for political manipulation. Nonetheless, the primary and secondary education play a central role in transmitting norms and values and shaping the identity of younger students. The foundations of identity and national dogma are established at this stage and the process of socialization and integration has much lesser impact after this period. Empirical research findings are consistent with this claim and reveal that

'Ethnic attitudes are formed early, and once positive or negative prejudices are formed, they tend to increase with time. Early socialization experiences are, therefore, critical in the formation of ethnic attitudes'. (Bush-Saltarelli, 2000: 3)

Language, history and worldviews are promoted through informal education at home but also through formal education in schools. This is why, next to the family, school is the most significant '*agency for cultural reproduction, socialization and identity formation*' (Williams, 1992).

The educational strategies in divided or post-conflict societies have to address two key aspects of integration: linguistic and cultural rights (Perry, 2003: 10). The linguistic rights are concerned with ensuring that the language of instruction and the languages taught at school reflect the ethnic diversity and provide equal opportunities for all students to actively participate in class. The education reform in BiH had to include linguistic rights as the language formerly spoken in Yugoslavia (Serbo-Croatian) was now recognized as three distinctive languages (Bosnian, Serbian and Croatian) and the right to speak 'one's own' language became closely linked to identity. The equality of all three languages and two scripts (Latin and Cyrillic) was declared in both entities in 2001 (Ibid: 13). The 2014 UN report on the state of education in BiH highlights the politicization of educational policies, especially in terms of using cultural and linguistic rights as means of increasing inter-ethnic divisions:

'Cultural rights, including linguistic rights, have been seriously misinterpreted by a number of actors to justify policies of separation and the establishment of hermetically sealed communities. The right to be taught in one's mother tongue cannot justify segregation; no one should invoke cultural diversity to infringe upon human rights guaranteed by international law, nor to limit their scope. In particular, the three official languages and the two scripts officially recognized in Bosnia and Herzegovina must not be considered a reason for separation but rather an asset that facilitates communication and openness to others.' (Shaheed, 2014: 100)

Cultural rights are concerned with a group of courses that include history, art, literature, music and other courses that may reflect group's shared history and experience. These courses are potentially controversial and open to various interpretations, due to their subjective nature. Deciding on the curriculum and content of these courses often becomes the most challenging part of the educational reforms in post-conflict societies considering that '*the content taught to children, the facts they learn about their culture, the history of their country and the history of other (often neighboring) countries, will play a key part in shaping their worldview and perceptions*' (Perry, 2003: 14). History lessons are particularly important in the transition period as they tend to be politicized and designed to promote certain events, personalities and versions of history and instilling pride in one's culture and heritage. The emphasis on history education is therefore often understood as means of cultural identity preservation.

While the so called 'national subjects' can be means of teaching a particular culture and deepening the understanding of community's history and heritage, they can also promote stereotypes and division and increase the polarization in post-war environment. The challenge of teaching these courses lies in overcoming the politicized lens of violent conflict and emphasizing shared and transversal subjects.

#### 4. Education Reform in Brčko District

*'Brčko has been a beacon illuminating the possibility of successful education reform in BiH'*  
ICG 2003

The Dayton agreement failed to resolve the status of the geopolitically important town of Brčko, and it was only in 1999, under immense international pressure, that the town was declared a special District under international supervision. While the District was granted almost complete independence from the Entities, it soon began to resemble a protectorate under the auspices of the international Supervisor whose authority was virtually unlimited and extended to all areas of social, political, and economic life in the District. In practice, this meant that the Supervisor could impose any reform or legislation even without the consent of local actors. Education reform in the Brčko District and the Supervisor's single-handed imposition of an integrated multi-ethnic education system was in sharp contrast with the system established in the rest of the country.

When the war in BiH ended, Serb, Croat and Bosniak children in Brčko attended separate schools with their own ethnic curricula (regulated by the RS law, the Tuzla canton law and the Posavina canton law). The establishment of the District changed the political conditions and paved the way for reforms that would become the core of international peacebuilding engagements in Brčko. The goal of integrating the education system was clearly stated in the 1999 Final Award:

...the Supervisor (of Brčko District) will integrate the District's educational system, harmonize curricula within the District, and ensure removal of teaching material, which the Supervisor considers to be inconsistent with the objective of creating a democratic, multi-ethnic society within the District (Annex to Brčko District Final Award, 18 August 1999, point 11).

In September 2000, first steps towards multi-ethnic education were made with the establishment of 'two schools under one roof' system as the maximum integration international community dared to push in Brčko. The system of 'two schools under one roof' established school attendance by all ethnic groups but at different times or at different parts of the building, effectively allowing the students to avoid any direct contact with each other. The actual implementation of this system meant moving Bosniak and Croat students who attended schools in the rural parts of the District into Brčko town and placing them in the same school building with Serb students. The transport of students from surrounding villages to school and back was done collectively by buses. The students were expected to enter the school building immediately after leaving the bus and board the buses as soon as their classes finished.

The reform was soon met with violent resistance and four-day protests that culminated in Serb demonstrators attacking the properties and residences of both returnees and foreigners, shouting "Out Turks! Out Americans!" (ICG, 2003: 15). There was a widespread sense of suspicion surrounding the international actors' presence in Brčko, and they were perceived not as part of the solution but as part of the problem. The students shouting 'Out Americans' illustrates that international actors were seen as intruders and that their engagement was perceived as a form of occupation. The violent protests sent a signal to the Supervisor that any further attempt of education reform would have to be carefully calculated and flexible enough to accommodate various alternatives. Following the protests, the schools were closed down for a month, and this was an opportunity to develop a new strategy and initiate the second phase of integration.

The first education law proposed by the Supervisor following the protests was rejected by the Serb Democratic Party (SDS) and the Serb Orthodox Church (ICG, 2003). They opposed the equality of languages and the removal of national and religious iconography from schools and refused to give their support to the law proposal in the Assembly. This prompted a reaction from the Supervisor who decided to use his authority and impose the '*Single law on Education and Harmonized Curriculum*' despite the lack of support in the Assembly.

In 2001, the Supervisor appointed separate boards for primary and secondary education and their main task was to harmonize the three existing national curricula and plan the integration of students and teachers. The most challenging part of the reform was coming up with the curricula for the category of 'national subjects' that included history, language and literature. As mentioned earlier, these courses became controversial in the post-war period as they were an important part of multiple projects of ethno-national citizenship (Perry, 2003:33) Nationalist leaders stressed the importance of promoting national values and attitudes across generations as the key aspect of preserving their identity.

After careful considerations, it was agreed that these courses would be taught separately and that teachers and students would be entitled to use their native tongues and choose between the use of Latin or Cyrillic script (in primary schools, teachers would be obliged to use both scripts, generally switching between scripts every week). History class curriculum was designed to cover only the history of the region until the Second World War and therefore avoid the most sensitive topics.

From July to September 2001, the teaching staff was selected and trained in the new curriculum that included specific provisions for increased contact time between students from different ethnic groups and introduced a new course on Democracy and Human Rights (OSCE 2007:7). It was clear that adapting the curricula and removing the sensitive topics would not be enough to push the reform through. Training teachers that would genuinely adopt the reform and encourage critical thinking and discussion was the key to success. Some respondents, however, recalled that teachers were more motivated by high salaries than their personal belief that integrated schools were desirable. Teachers were, in the end, just ordinary citizens that carried their own burden of war experience and trauma:

'Some of my colleagues refused to teach in mixed classrooms. They said they would rather move to a different place or lose their job than teach something that goes against their beliefs and consciousness' (Serb, teacher, 48, interviewed on August 2, 2017).

'I did not face any problems in the classroom, it was more awkward in the shared teachers' room. The room was somehow informally divided into separate 'ethno corners' and we avoided talking to each other unless it was absolutely necessary. For some reason, we were expected to teach the kids something we could not practice ourselves' (Bosniak, teacher, 48, August 2, 2017).

The main difference between Brčko and the rest of BiH at this point was that the international Supervisor for Brčko was given a clear mandate to reform the education allowing him to achieve significant progress despite the delay caused by Brčko's unresolved status. There was no clear mandate on the state level and the education reform remained trapped between conflicting entity interests. At the same time, this caused the citizens of Brčko to view the reforms as an experimental program and themselves as guinea pigs. The former Supervisor Henry L. Clarke, in his address to teachers in late August 2001, reflected on such concerns and expressed the importance of education reform for the success of the whole peacebuilding project in Brčko:

'Some people talk about Brčko as a laboratory. I do NOT consider Brčko a laboratory. We are NOT testing anything, or anybody's theory. We are making the minimum changes that are essential to reconstruct Brčko after a destructive war, and to give our children the chance for a better life.' (OHR Press Release, 'Remarks to Secondary School Teachers by Henry L. Clarke, Supervisor of Brčko', 22 August 2001.)

Following the failure of the single-handedly imposed 'two schools under one roof' model, the new reforms were introduced gradually. In the first academic year only the youngest of children (first grades) in each school were integrated while other classes remained segregated. This approach was meant to ease the transition without disrupting the existing classes. Students and their parents were given time to get used to the idea of mixed classrooms and teachers had the chance to prepare themselves for teaching in multi-ethnic environment. Overall the reintegration of schools in Brčko District went remarkably smoothly and was seen as a potential model for reforms on entity and state level:

'In order to maintain the status quo, some in society even suggest that the integration of schools is another form of assimilation. The District of Brčko belies this argument. There, students of different ethnicities go to school together, receive instruction in their own languages in the same classroom, and retain their individual cultural identities... The evidence suggests that, with sufficient political will, it can serve as a model for the rest of BiH' (OSCE, 2007:5).

The education reforms in Brčko were based on the premises of contact hypothesis that suggested that maximizing the time students spend in a classroom together would teach them tolerance through the simple process of going to school (Paulson, 2011, Perry, 2003:37). The integration of schools was perceived as the underlying condition for achieving reconciliation and transforming the inter-ethnic relations. A number of scholars, however, reject the assumption of linear and causal link between education and reconciliation. The criticism is rooted in the fact that such approaches tend to apply standardized solutions (education-for-reconciliation) to various environments and therefore ignore the local interpretations and meanings constructed by children themselves (Paulson, 2011). It is important to acknowledge that education reform does not happen in a social vacuum and that there are many elements that interact and influence the outcomes of implemented policies. The process can, for example, be influenced by strategies teachers employ to avoid sensitive topics (Bekerman, 2009; Jones, 2011: 82) like in the case of history lessons and the decision to avoid the topics that dealt with post-WW2 history.

The vast majority of respondents regarded the shared classrooms as neutral spaces that encouraged tolerance and inter-ethnic cooperation. These excerpts from interviews with high school teachers illustrate the transformation of inter-ethnic attitudes:

'All students should feel safe and comfortable, free to express their opinions and ask questions. Our goal is to create a relaxed atmosphere that will allow the students to connect on the basic human level and form friendships.' (Bosniak, biology teacher, 47, interviewed on July 21, 2017).

'Reintegration of schools is perhaps the most successful reform in Brčko. The change in students' attitudes and behavior is so profound and visible. Honestly, I did not believe it would work as quickly as it did' (Croat, teacher, 40, interviewed on July 21, 2017).

While the education reform was portrayed as one of the most prominent dimensions of successful peacebuilding in Brčko District, it remained unclear whether the reforms that had been initiated and imposed by the Supervisor would be sustainable in the long run and outlast his mandate. Some respondents expressed doubts about the long-lasting effects of mixed education system in regards to reconciliation and shift in inter-ethnic attitudes:

'Yes, high schools are integrated and that is a success to itself. But does this really tell us anything about reconciliation and transforming attitudes? Most high school students still do not spend time together after school and when it comes to university choices they clearly prefer cities where their community is dominant. All Serb students continue their education in Banja Luka, Novi Sad or Belgrade. Bosniaks go to Tuzla or Sarajevo, Croats to Zagreb and this is where the 'mixing' ends.' (Bosniak, university student, 20, interviewed on July 18, 2017).

Other respondents also expressed the fear of reconciliation and what it may entail in the case of another war:

'If kids go to school together, spend time together, go out together they will become friends, fall in love, marry each other. This is what I would like to avoid. The families that were mixed were the ones hurt the most during the war' (Bosniak, 38, lawyer, interviewed on July 18, 2017).

Ironically, the removal of barriers between children and forming close friendships is perceived as a potential risk. Such attitudes depict the lingering fear and anticipation of another conflict despite peacebuilding efforts. At the same time, it indicates that the ethnonational narrative is not necessarily the dominant factor influencing the inter-ethnic relations as the fear of violence prevails.

An overlooked dimension of parent's reluctant attitude towards enrolling their children in multi-ethnic schools is the complexity of every-day class interactions that often lack sensible solutions. Parents repeatedly pointed out the absurdity of school system in which integrated, multi-ethnic schools were still dominated by inter-ethnic divisions. The following statement illustrates the type of challenges they face:

'My son started school this year and we decided to send him to school which is the closest to our house. It happens to be Druga Osnovna (Second Elementary School) which is one of the few multi-ethnic primary schools in the District. In his class, there is approximately the same number of Bosniak and Serb students and since children were supposed to start learning to write, the question was whether they would first be taught the Cyrillic or Latin alphabet. To avoid any complaints, it was decided that the teacher would divide the board into two parts and teach both scripts simultaneously. It was left up to the children to choose which side of the board to follow. So, six year olds are basically forced to decide for themselves if they will be writing Cyrillic or Latin and place themselves in a certain category. I find the whole system utterly ridiculous and quite harmful. When I was a student in Yugoslavia we were also learning both scripts, in first grade Latin and in second grade Cyrillic and no one made it a big deal. My wife and I are now wondering if we had made a mistake by sending him to multi-ethnic school.' (Bosniak, NGO representative, 40, interviewed on July 27, 2017).

The degree of success and the sustainability of the education reform have been put to test over the past eight years, following the suspension of the Supervisor's authority in Brčko in 2012. The one topic that continued to emerge throughout interviews and conversations with Brčko citizens was the lack of investment in education and too much focus on ethnicity and integration. The commonly shared view was that international actors placed integration at the top of their agenda at the expense of implementing reforms that would increase the quality of education and create a competitive and stimulating school environment. The blame was not placed exclusively on international actors but also on local political leaders who focused their attention primarily on protecting the 'national interest':

'So, imagine that, instead of ethnic bickering, we focused on applying the best models in Brčko, models that worked in other places. Why couldn't we sit and decide to apply for example principles of the Finnish school model or introduce some Montessori elements or whatever. But no, all the attention was focused on protecting ,national interests'. I'm afraid the train has left the station and we are stuck with the same old Yugoslav education system only thing we added to the system are divisions and more nationalist brain-washing.' (Bosniak, former Brčko assembly member, 48, interviewed on May 27, 2017).

'What is this obsession with how many Serbs, how many Bosniaks? They should rather ask how many computers and how many microscopes we have in our schools. The focus needs to be shifted from ethnicity to providing quality education' (Bosniak, 42, NGO representative, interviewed on June 12, 2017).

These attitudes illustrate an important shift in citizens' priorities and the overall fatigue caused by persisting ethno-national narratives that neglect more essential issues like the quality of education and the degree of unfulfilled potential in Brčko's schools.

## 5. Conclusion

Post-conflict environment is burdened by poverty, unemployment and high tensions. While education reforms can facilitate the peace process and encourage reconciliation in such setting, they can also fuel violence and hostility (Smith and Vaux, 2003; Perry, 2003). Establishing ethnic segregation of schools or the use of education as a tool to reinforce political and ethnic divisions deepens the divisions, and negatively affects the post-conflict recovery.

The existence of 'two schools under one roof' in Bosnia and Herzegovina despite two decades of international peacebuilding indicates the underlying societal security dilemma. Contrary to their intention, the adopted policies increase inter-ethnic polarization and the need to strengthen and protect ethnic identity. This is closely linked to the widespread anticipation of another conflict, and the lingering fear that still shapes the community relations in Bosnia and Herzegovina.

Brčko District was the first place in Bosnia and Herzegovina where international actors successfully initiated and implemented education reform and established integrated multiethnic schools. The success of educational reform and integration process in Brčko District was measured by the level of integrating ethno-national communities in numbers representative of their populations. Needless to say, such narrow criteria fail to capture other aspects of the process and overlook the insecurities and contestation that shape the dynamics of inter-ethnic relations. The links between integrated education and reconciliation proved to be more complex and do not necessarily translate into change in attitudes. At the same time, Brčko experience demonstrates that reconciliation should not be understood as the end point achieved with successful reforms but rather as an ongoing process of contestation and redefinition of mutual relations. Placing emphasis on universal topics that transcend political and ethnic divisions has the potential to reduce intergroup conflict and increase mutual understanding.

## Bibliography

- Bar-Tal, D., & Rosen, Y. (2009). Peace Education in Societies Involved in Intractable Conflicts: Direct and Indirect Models. *Review of Educational Research*, 79(2), 557–575. <http://www.jstor.org/stable/40469048>
- Bekerman, Z. (2009). The Complexities of Teaching Historical Conflictual Narratives in Integrated Palestinian- Jewish Schools in Israel. *International Review of Education*, 55, p.235-250.
- Buckland, P. (2005). 'Reshaping the Future: Education and Postconflict Reconstruction'. Worldbank. Washington.
- Bush, K. – Saltarelli, D. (2000). *The Two Faces of Education in Ethnic Conflict: Towards a Peace-building Education for Children.*, August 2002. UNICEF Innocenti Research Centre. ISBN 88-85401-67-8
- Final Award (1999). Arbitral Tribunal for Dispute over Inter-Entity Boundary in Brčko Area. Annex. March 5, 1999. Full text available at: [http://www.ohr.int/?ohr\\_archive=Brčko-final-award-annex](http://www.ohr.int/?ohr_archive=Brčko-final-award-annex) (Accessed on December 30, 2021).
- Emkic, E. (2018). *Reconciliation and Education in Bosnia and Herzegovina: From Segregation to Sustainable Peace.* Springer. ISBN: 978-3-319-73034-9

- Hromadzic, A. (2008). Discourses of Integration and Practices of Reunification at the Mostar Gymnasium, Bosnia and Herzegovina. *Comparative Education Review*, November 2008. Volume 52 p. 541-563.
- International Crisis Group (2003) Report. "Bosnia's Brčko: Getting in, getting on and getting out". June 2003. Sarajevo/Brussels. Available at: <https://www.crisisgroup.org/europe-central-asia/balkans/bosnia-and-herzegovina/bosnias-Brčko-getting-getting-and-getting-out> (Accessed on December 30, 2021).
- Jones, B. (2011b). 'Understanding Responses to Postwar Education Reform in Multiethnic District of Brčko, Bosnia- Herzegovina'. In: Paulson, J. (2011): *Education and Reconciliation: Exploring Conflict and Post-Conflict Situations*. Continuum. London. ISBN: 978-1-4411-53258.
- Perry, V. (2003). 'Reading, Writing and Reconciliation: Educational Reform in Bosnia and Herzegovina'. European Centre for Minority Issues. Working paper #18. September 2003.
- Paulson, J. (2011). *Education and Reconciliation: Exploring Conflict and Post-Conflict Situations*. Continuum. Bloomsbury Publishing. London. ISBN: 978-1-4411-5325-8.
- Pašalić-Kreso, A. (2008). "The war and post-war impact on the educational system of Bosnia and Herzegovina". *International Review of Education*. July 2008. p.353-374.
- Pašalić-Kreso, A. (2002). Education in Bosnia and Herzegovina: Minority Inclusion and Majority Rules The system of education in BiH as a paradigm of political violence on education. *Current Issues in Comparative Education, 2002, Vol.2(1)*. p. 6-13.
- Šarančić, J. (2016). On Multiethnic Schools in Consociational Democracies: A Comparative Analysis of Brčko District and Bosnia-Herzegovina. Lawrence University Honors Projects. 94.
- Shaheed, F.(2014). The Special Report in the field of cultural rights in Bosnia and Herzegovina. The UN General Assembly. /HRC/25/49/Add.1
- Smith, A. - Vaux T. (2003). *Education, Conflict and International Development*, London: Department for International Development. Available at: <https://gsdrc.org/docs/open/sd29.pdf> (Accessed on Decmber 30, 2021).
- Spasenovic, V. - Vujisic-Zivkovic, N. (2010). "Modernization, ideology and transformation of educational science: Former Yugoslavia case (1918-1990)". *Pedagogija LXV*, 2, 2010. p.213-222.
- Stabback, P. (2007). Common curriculum, core curriculum or common curriculum standards— finding a solution for Bosnia and Herzegovina. *Prospects*. 2007. Volume 37, p. 449–467.
- United Nations (2016). *Compilation of the Recommendations of the UN Human Rights Mechanisms and their Implementation in Bosnia and Herzegovina*. Sarajevo, July 2016: [http://ba.one.un.org/content/dam/unct/bih/PDFs/publications/Compilation\\_Recommend\\_UNHuman%20Rights\\_in\\_BiH.pdf](http://ba.one.un.org/content/dam/unct/bih/PDFs/publications/Compilation_Recommend_UNHuman%20Rights_in_BiH.pdf) (Accessed on December 30, 2021)
- Veličković, Nenad. (2014). Education system of BiH: All schools under one roof (*Obrazovni sistem BiH: Sve škole pod jednim krovom*). Available at: <http://www.skolegijum.ba/tekst/index/595/obrazovni-sistem-bih-sve-skole-pod-jednim-krovom> (Accessed on December 30, 2021)
- Williams, C.H. (1992).The Cultural Rights of Minorities: Recognition and Implementation. in J. Plitctova (ed.), *Minorities in Politics: Cultural and Language Rights*.1992. Vol 1. Czechoslovak Comitee of the European Cultural Foundation.



# **Connected Academics: Bibliometric and Systematic Review on the Use of Social Media in COVID-19 Research in Bangladesh**

**Jahidul Islam Sarker, Tariquill Islam, Md. Nazmul Islam,  
Moshiur Rahman**

## **1. Introduction**

The arrival of the COVID-19 virus impacted public health negatively (Mamun et al., 2021; Dhanani and Franz, 2020). It also severely affected many areas of human life (Fu, Hereward, MacFeely, Me, & Wilmoth, 2020). The research related to COVID-19 was not limited to the field of public health but goes beyond other areas of studies (Shek, 2021; Qiu, Park, Li, & Song, 2020; Ozdemir, 2020). The role of the media during the pandemic became a significant research area (Chao, Xue, Liu, Yang, & Hall, 2020; Liu, 2020). Media and social media have been used as a medium of updated news and information related to COVID-19 (Azlan, Hamzah, Sern, Ayub, & Mohamad, 2020). It is evident that social media is crucial both positively (Baniamin, 2021) and negatively (A. K. M. N. Islam, Laato, Talukder, & Sutinen, 2020). On the one hand, it creates awareness among the public (Almotawa & Aljabri, 2020). On the other hand, fake news and misinformation became widespread through social media during the pandemic (Al-Zaman, 2021b). Thus, multidisciplinary research has been conducted with social media at both the global level (Lazzini, Lazzini, Balluchi, & Mazza, 2021) and local levels (Holmes et al., 2020).

Multiple reviews have already been published based on articles on the use of social media in the health sector. While some studies focused on the use of social media from a broader health perspective, the latest review included the use of social media during the COVID-19 period. Moorhead et al. (2013) investigated articles related to the uses, benefits, and limitations of social media for health communication from 2002 to 2012 period. There were seven major uses found for social media in health communication, including improving relationships with people and supporting, sharing, and acquiring health messages. Chen & Wang (2021) reviewed the articles which discussed use of social media in health purpose. They reviewed articles from 2016 to 2020. They discovered that the number of publications steadily climbed over the course of five years, indicating that researchers were increasingly interested in using social media for health objectives. This paper summarized ten social media practices by health centers, health scientists, and the general public for diverse health reasons. During the initial outbreak, from November 2019 to November 2020, Tsao et al. (2021) reviewed empirical papers on COVID-19 and social media. They identified five major public health themes regarding the function of online social media platforms and COVID-19 after reviewing 81 studies. These themes included polling public opinion, recognizing infodemics, assessing psychological health, detecting or forecasting COVID-19 instances, analyzing government reactions to the pandemic, and assessing the quality of health records in prevention education films.

Social media users have been rising in recent years. Between 2020 and 2021, over nine million new users joined social media platforms in Bangladesh ("Bangladesh Charts 9m", 2021). The research found that Bangladeshi citizens use social media to get updated information. During the pandemic, Bangladeshi people rely on social media significantly for getting updates, sharing information, or expressing their views. A study found that creative social media use improves online knowledge of COVID-19 precautions, which helps avoid COVID-19 outbreaks in Bangladesh (M. M. Islam, Islam, Ahmed, & Rumana, 2021). So far there were no comprehensive review found that examine the use of social media during COVID-19 pandemic in Bangladesh.

So far, no comprehensive review has been found that solely focused the use of social media in Bangladesh perspective during the COVID-19 pandemic. This paper aims to present a comprehensive review of this research area. Based on the above discussion, this paper formulates four research questions: RQ 1: What is the central area of research in this domain? Which research methodologies have been used? RQ 3: How did social media facilitate COVID-19 research in Bangladesh? And RQ 4: Who are the top authors in this field?



In this study, we retrieved COVID-19 related research articles from the Web of Science database, which was studied using social media in Bangladesh. Firstly, we analyze the metadata of these studies by using the bibliometric analysis method, called the bibliometric R package. Later we reviewed the content of all papers manually. Our study presented the central area of research, types of data used in these studies, essential research findings, a list of top authors, and other vital issues.

## 2. Research Methodology

This study analyzed 50 documents that we retrieved from the Web of Science (WoS) database. The study employed SALSA methodology to obtain exact data for analysis.

The current study used the Web of Science (WOS) database to gather literature on COVID-19 and social media in Bangladesh. WOS is a worldwide recognized Clarivate Analytics-managed research platform that provides more than 50 million papers published in peer-reviewed journals across various research fields (Merigó, Mas-Tur, Roig-Tierno, & Ribeiro-Soriano, 2015). The WOS core collection comprises records of papers that date back to 1996.

This study adopts the SALSA framework for collecting relevant data from WOS. SALSA is a popular data collection method in the literature review. SALSA framework suggests a step-by-step search, Appraisal, Synthesis, and analysis process. This ensures the methodological procedures' accuracy, systematization, comprehensiveness, and reproducibility (Grant & Booth, 2009).

We first searched for COVID-19 related documents in the Web of Science database to select data. To get the same document, we used keywords "COVID-19", "Social Media," and "Bangladesh." Timespan was from 2020-2021. Initially, we found 72 documents. Among them, we excluded editorials, letters, and proceeding papers, and we took 65 documents as research articles, early access papers, and review papers. Later, we went through the titles and abstracts of 65 papers. At this stage, we excluded 15 papers that were not related to Bangladesh, or media, or COVID-19 keywords. We downloaded and finalized 50 documents as Bib TeX files and Excel files.

We employed bibliometric and systematic analysis to examine our selected 50 documents. In the first stage, we implemented a bibliometric study to obtain information such as top authors, top sources, and a summary of the metadata of these papers. In the second stage, we implemented a systematic review to synthesize key findings of these papers, reveal the methods used in these studies, and explore the types of social media used in the studies.

Bibliometric analysis is a popular method that allows the analysis of many pieces of literature using the R programming language. Previously, researchers employed bibliometric methods to estimate publishing activity across various fields (Pasadeos & Renfro, 1992) (Casado-Aranda, Sanchez-Fernandez, & Viedma-del-Jesus I, 2021). Recent years have seen a surge in the usage of bibliometric reviews, owing to their ability to map science via citations and co-citations (Ashraf Khan, Hassan, Paltrinieri, Dreassi, & Bahoo, 2020; Archambault, Campbell, Gingras, & Larivière, 2009). We used a systematic review as bibliometric analysis primarily focused on metadata to synthesize the literature.

We implemented a systematic literature review on our 50 documents and bibliometric analysis. A systematic review is characterized as "an evaluation of the evidence on an identified subject that employs systematic and explicit techniques for identifying, selecting, and critically appraising relevant primary research, as well as extracting and analyzing data from the included studies" (Wright, Brand, Dunn and Spindler, 2007). Reproducible and transparent approaches must be employed. (K. S. Khan, Ter Riet, Glanville, Sowden, & Kleijnen, 2001). It uses processes

that reduce biases and random errors to synthesize many connected primary research findings (Cook, Mulrow, & Haynes, 1997).

We formulated four research questions to systematically review our selected documents and manually went through the 50 papers. Later, we developed several tables to synthesize five data types about these papers, including sample size, methods, types of social media users, and these papers' findings. Our study presents a comprehensive review of this literature using bibliometric analysis and a systematic approach.

### 3. Findings and Analysis

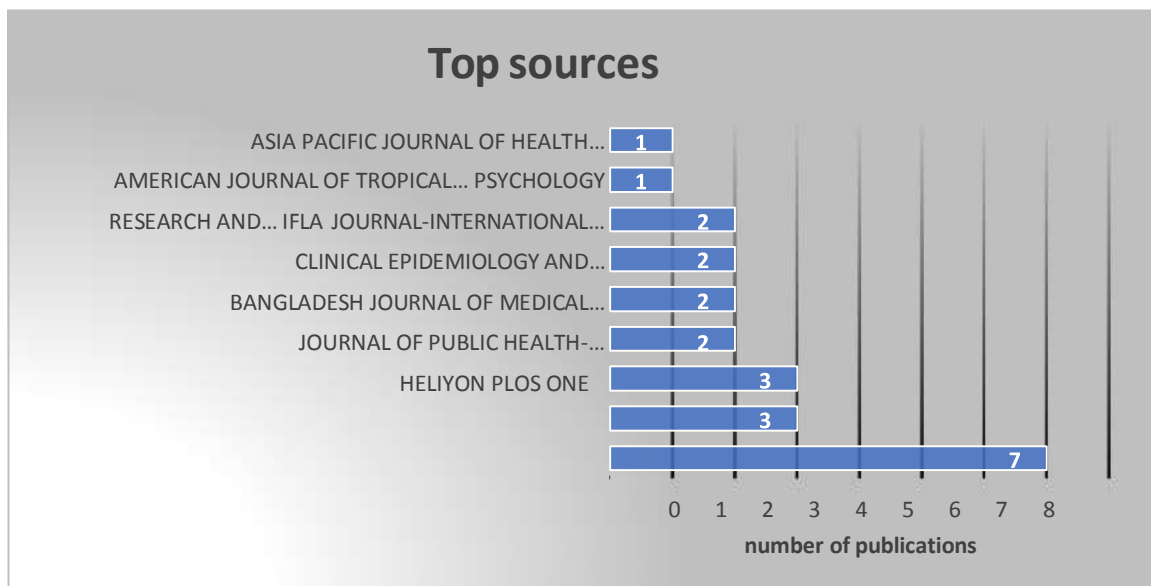
#### 3.1. Summary of Data

Description	Results
<b>Main Information About Data</b>	
Timespan	2020-2021
Sources (Books, Journals, etc.)	36
Documents	50
Average years from publication	0.359
<b>Authors</b>	
Authors	305
Author Appearances	373

Table 1 Summary of data

The information gathered from the WOS core collection is summarized in Table 1. This study identifies 50 documents by 305 authors during 2020–2021. These documents were published from 36 different sources. The bibliometric analysis reveals that the COVID-19 research by social media can be characterized by high collaboration.

### 3.2. Top Sources



PLOS ONE became the most crucial journal to have published articles on COVID-19 and social media in Bangladesh regarding the number of documents. It published seven articles on this issue, while the journal of Public Health and Heliyon ranked second and third, respectively, having published three papers each.

#### 3.2.1. Core Journals

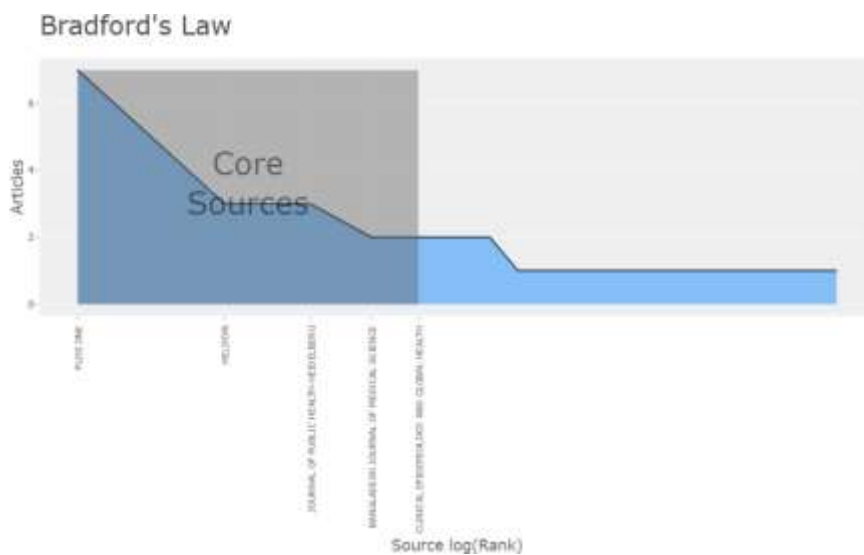


Figure 2 Bradford's Law

Bradford's law (Bradford, 1934) identifies five publications as the key journals in this discipline. For example, as demonstrated by the shaded region in Figure 2, these five journals produced one-third of the overall collection in this field. Seven papers (14%) are from the PLOS ONE journal, followed by articles from the Journal of Public Health and Heliyon.

### 3.3. Top Authors

Authors	Articles
MAMUN MA	6
ISLAM MS	5
SIKDAR MT	4
HASAN MT	3
HOSSAIN S	3
ISLAM MA	3
MIM SS	3
AL-ZAMAN MS	2
AL BANNA MH	2
AL MAMUN F	2

Table 2 Top Authors

In terms of the number of publications, Mamun MA contributed to the highest number of publications. Mamun MA and co-authors published six documents, while Islam MS and Sikdar MT published five and four papers, respectively.

### 3.4. Areas of Study

Area	Author
<b>Mental Health</b>	M. A. Mamun, 2021a; Ahmed, Aurpa, & Anwar, 2021; Ayatullah Khan et al., 2021 Alam, Bin Ali, Banik, Yasmin, & Salma, n.d.; M. S. Islam, Sujana, et al., 2021; M. I. Hossain, Mehedi, Ahmad, Ali, & Azman, 2021; Marzo, Singh, & Mukti, 2021; M. A. Mamun, 2021b; Ripon et al., 2020; M. A. Mamun et al., 2021; F. al Mamun, Hosen, Misti, Kaggwa, & Mamun, 2021; M. A. Rahman et al., 2020; M. A. Mamun et al., 2020 ; M. T. Hossain et al., 2020 ; Banerjee et al., 2020
<b>Vaccine</b>	Abedin et al., 2021; M. S. Islam, Kamal, et al., 2021; Musa & Husna, 2021
<b>Misinformation</b>	Yesmin & Ahmed, 2021; Al-Zaman, 2021a; M. S. Islam, Kamal, et al., 2021; Al-Zaman, 2021b; A. K. M. N. Islam et al., 2020
<b>Policy</b>	Cowley et al., 2021; Basher & Haque, 2021
<b>Socio economy</b>	Arafat et al., 2020; G. Rasul et al., 2021
<b>Physical Health</b>	Sikdar et al., 2021; Sharif et al., 2021; Baniamin, 2021; M. S. Islam et al., 2020; Malik et al., 2020
<b>Education</b>	Mathrani, Sarvesh, & Umer, 2021; Begum, Roknuzzaman, & Shobhane, 2021; Ali et al., 2021; Kundu et al., 2021; Kundu et al., 2021; Ferdous et al., 2020
<b>Prevention measure</b>	M. M. Islam et al., 2021; Das et al., 2021; Hosen et al., 2021
<b>Others</b>	Rashid, Idris, Zulkiflee, Yahaya, & Ramesh, 2021; M. S. Rahman, Alam, Salekin, Belal, & Rahman, 2021

According to table 3, the Mental health area witnessed the highest number of publications. Other key research areas include disinformation, physical health, education, prevention, and fewer published policy articles.

### 3.5. Key Features of Mental Health-Related Papers

Headline	Data	Method	Types of social media	Finding
Mental health impacts of COVID-19 outbreak and associated drivers among university students in Bangladesh	368 participants	Online survey	Not specified	Anxiety was estimated to be 87% prevalent.
Assessing the mental health condition of home- confined university level students of Bangladesh due to the COVID-19 pandemic	509 university students	Online survey	Facebook, WhatsApp, and Instagram	Students' mental health issues grew due to coronavirus exposure, insecurity, social media use, and smoking.
Problematic Smartphone and Social Media Use Among Bangladeshi College and University Students Amid COVID-19: The Role of Psychological Well-Being and Pandemic Related Factors	5,511 university students	Online survey	Not specified	Mean scores for USFP and USFP were 20.8 6.8 (out of 36) and 14.7 4.8 (out of 30).
Psychosocial stress and trauma during the COVID-19 pandemic: Evidence from Bangladesh	10 journal articles and 45 newspaper reports	Systematic review	Not specified	The coronavirus outbreak severely impacted mental health.
A survey of psychological distress among Bangladeshi people during the COVID-19 pandemic	503 respondents	cross-sectional survey	Not specified	44.3 percent of the respondents reported mild-moderate distress and 9.5 percent reported severe distress.
Prevalence and risk factors of COVID-19 suicidal behavior in Bangladeshi population: are healthcare professionals at greater risk?	3,388 respondents	cross-sectional study	Not specified	Suicidal behaviors were reported by 6.1% of participants.
Suicide and Suicidal Behaviors in the Context of COVID-19 Pandemic in Bangladesh: A Systematic Review	9 journal articles	systematic review	Not specified	Four of the studies assessing the prevalence of suicide behaviours and risk factors, while the remaining five were retrospective.
The COVID-19 pandemic and serious psychological consequences in Bangladesh: A population-based nationwide study	10,067 respondents	Online cross-sectional survey	Not specified	COVID-19 was associated with 33% depression and 5% suicidal ideation.
Mental Disorders of Bangladeshi Students During the COVID-19 Pandemic: A Systematic Review	7 articles	A systematic review	Not specified	The prevalence rates of mild to severe symptoms of depression, anxiety, and stress ranged from 46.92% to 82.42%, 26.62% to 96.822%, and 28.52% to 70.12%.

Social and electronic media exposure and generalized anxiety disorder among people during COVID-19 outbreak in Bangladesh: A preliminary observation	880 participants	Online survey	Facebook	About half of those surveyed reported an increase in anxiety (49.1 percent).
Psychological and nutritional effects on a COVID-19-quarantined population in Bangladesh	5792 individuals	Online survey	Facebook, and LinkedIn	Depression was found in 24% of respondents and was linked to dietary changes (misconception).
The impact of the COVID-19 pandemic on the mental health of the adult population in Bangladesh: a nationwide cross-sectional study	1,427 respondents	Online survey	Not specified	Anxiety and depressive symptoms were found in 33.7% and 57.9% of people.
Depression and anxiety among university students during the COVID-19 pandemic in Bangladesh: A web-based cross-sectional survey	476 university students	Cross-sectional web-based survey	Facebook	Students were depressed and anxious.
COVID-19: psychological effects on a COVID-19 quarantined population in Bangladesh	5792 respondents	Online survey	Instagram, Facebook and LinkedIn	Male institutional quarantined had the most PTSD symptoms.
Impact of the COVID-19 pandemic on psychosocial health and well-being in South-Asian (World Psychiatric Association zone 16) countries: A systematic and advocacy review from the Indian Psychiatric Society	Thirteen studies	A systematic review	Not specified	Non-psychotic depression, preanxiety, somatic disorders, drinking disorders and insomnia have increased.

Table 4 Feature of mental health related papers

Our study found that mental health is the most critical area of research among our selected papers. Table 4 demonstrated that most studies used the survey method, while few conducted systematic reviews. In terms of the respondents, the range fluctuates from around 500 to 10,000. For research purposes, different social media platforms such as Facebook, Twitter, messenger, LinkedIn, etc. have been used. The study found that some researchers used social media to collect survey data while others analyzed social media posts or trends. Table 4 shows that the studies focused on depression, the psychological impact of COVID-19, anxiety, suicidal tendency, etc.

Headline	Data	Method	Types of social media	Finding
Infodemic surrounding COVID-19: Can LIS students recognize and categorize "problematic information" types on social media?	An online survey was conducted among students.	Quantitative data analysis	Not specified	The findings demonstrated that students' awareness of infodemic and related terms, as well as COVID-19 related harmful social media posts, was lacking.
Prevalence and source analysis of COVID-19 misinformation in 138 countries	This study looked at 9657 items of misinformation from 138 nations.	Quantitative data analysis	All social media platforms	The statistics suggest that India (15.94%) has the most disinformation. Social media (84.94%) produces the most misinformation. Among all social media platforms, Facebook creates 66.77% of misinformation.

COVID-19 vaccine rumors and conspiracy theories: The need for cognitive inoculation against misinformation to improve vaccine adherence	Sources included social media, television and newspaper websites.	Quantitative data analysis	Facebook, YouTube, Twitter	The investigation found 637 COVID-19 vaccines, 9 per cent of which were conspiracy ideas from 52 countries. Sixty-six percent of the 578 rumors were about vaccine development, availability and access, while eight percent were about vaccine safety, efficacy and acceptance.
Social media and COVID-19 misinformation: how ignorant Facebook users are?	The study based on 11,716 comments from 876 Facebook.	Quantitative data analysis	Facebook	Most users trust disinformation (60.88%) and few can deny (16.15%) or doubt (13.30%).
Misinformation sharing and social media fatigue during COVID-19: An affordance and cognitive load perspective	433 Bangladeshi respondents	Analysis based on structural equation modelling and neural network techniques.	Not specified	People motivated by self-promotion and entertainment are more likely to broadcast dubious information.

Table 5: Features of misinformation related papers

Misinformation is another critical area of research in our selected literature. Social media misinformation-related studies mainly adopt quantitative data analysis methods. Some studies followed survey while few studies examined Facebook posts and comments. The result of the studies revealed that social media had been used as a prime source of misinformation.

### 3.7. Features of Physical Health-Related Papers

Headline	Data	Method	Types of social media	Finding
Evaluation of sleep quality, psychological states, and subsequent self-medication practice among the Bangladeshi population during COVID-19 pandemic	2941 respondents	Survey	Facebook, WhatsApp, Viber, IMO etc.	10% to 29.5% had severe sleep problems, and some had severe anxiety and depression.
The positive impact of social media on health behavior towards the COVID-19 pandemic in Bangladesh: A web-based cross-sectional study	1808 respondents	Pearson's correlation analyses	Facebook, YouTube	Most of the users were students (63 percent, 1131 of 1808). The most popular sources were social media (53%) and television (44%) (959/1808).

Citizens' Initiatives for Crisis Management and the Use of Social Media: An Analysis of COVID-19 Crisis in Bangladesh	Various Facebook groups.	Netnography	Facebook	People are using social media to address the crisis.
COVID-19-Related Infodemic and Its Impact on Public Health: A Global Social Media Analysis	COVID-19 Information Retrieval Reports online	Descriptive analysis of the quantitative data	Facebook, Twitter	2,311 rumour, stigma and conspiracy theories report in 25 languages from 87 countries have been identified.
Creative social media use for COVID-19 prevention in Bangladesh: a structural equation modeling approach	265 Bangladeshi people	Online survey	WhatsApp, Facebook, YouTube, Imo, We Chat, Twitter, LinkedIn, and Instagram	Creative social media use enhances internet knowledge of COVID-19 precautions.
Community people preparedness and response on prevention and control of COVID-19 best practice in bangladesh	300 patients and their attendants were interviewed.	Survey	Not specified	
Prevalence and Associated Factors of Problematic Smartphone Use During the COVID-19 Pandemic: A Bangladeshi Study	601 students	A cross-sectional survey	Facebook, WhatsApp, etc.	Around 86.9% of students were problematic smartphone users.

Table 6: Features of physical health-related papers

Physical health has also become an important research area, apart from mental health. The survey was the most followed method of this area. Besides the survey, some studies reviewed newspaper reports and even interviewed COVID patients.

### 3.8. Feature of “Other” Papers

Headline	Data	Method	Types of social media	Finding
Public libraries' responses to a global pandemic: Bangladesh perspectives	interviews with eight librarians.	The study used a combination of quantitative and qualitative approaches. (Mixed method)	Not specified	Most of the libraries were unprepared for a crisis.



Knowledge, Attitude, Practice, and Fear of COVID-19: an Online-Based Cross-cultural Study	11296 participants.	Online survey	Facebook, Messenger, WhatsApp, and Skype	Fear and knowledge were not correlated.
Knowledge, attitudes, and preventive practices toward the COVID-19 pandemic: an online survey among Bangladeshi residents	1765 Bangladeshi adults	Cross-sectional survey	Not specified	In terms of infection prevention practices, 96.6% wore masks outside the home and 98.7% washed their hands with soap on their return.
Knowledge, attitudes, and practices related to the COVID-19 pandemic among Bangladeshi youth: a web-based cross-sectional analysis	707 survey participants	A cross-sectional survey		Participants collected information on COVID-19 largely through social media (70.4%).
Knowledge, attitude, and practice regarding COVID-19 outbreak in Bangladesh: An online-based cross-sectional study	Of the 2017 survey participants,	Online survey	Many	48.3 percent of participants possessed more accurate knowledge.
Responsible Factors of Panic Buying: An Observation from Online Media Reports	Reports related to panic buying.	The study examined media stories on panic buying.	Not specified	In 93 nations, panic buying was observed. Around 75% of responses said that a sense of scarcity was a significant influence.
Genomics, social media and mobile phone data enable mapping of SARS-CoV-2 lineages to inform	genomics, Facebook "Data for Good", and	Data analysis	Facebook	At the beginning of mid-2020, most (85%) of the sequenced isolates were Pango B.1.1.25 (58%) or B.1.1 (19%).

Table 7: Feature of "other" papers

Table 7 shows the papers that are not related to significant areas. In these papers, different areas were examined. Issues related to the environment and the use of libraries came up as a research topic. The survey method was the most used.

#### 4. Discussion and Conclusion

The study found that the two key research areas among the selected articles are mental health and misinformation. In contrast, the policy-based paper came as the least researched area. The finding implies that Bangladeshi people suffered from mental disorders like anxiety, fear, trauma, and depression due to COVID-19. For evidence, the research found that around 15% of Bangladeshi students experienced severe depression (Asaduzzaman Khan, Uddin, & Islam, 2019). Among the papers, we found only two documents related to policy. One article describes health policy, while the other paper discusses education policy.

The paper found that several research approaches have been used in these papers. Apart from research methodologies of social science, the methods of natural science are also used. A few articles used hybrid methodology too. The survey came as the most used methodology. It signifies that the opportunity for face-to-face data collection was limited due to the lockdown situation. Thus, the online survey method was found most common method among researchers. Besides, the content analysis method was also used a significant amount of research. The content of social media, newspaper reports, and videos has been analyzed quantitatively and qualitatively.

The paper discovered that social media is used in a variety of ways. Firstly, survey questionnaires were distributed through social media sites among respondents. Secondly, Covid-related posts from different social media platforms were retrieved and analyzed in much research. Accordingly, the authors of Mamun (2020, 2021, 2021a, 2021b), Islam (2020, 2021, 2021B), Sikdar (2020, 2021) came out as the top authors in this field. Mamun published six papers and received the highest number of citations among the authors. Islam, Sikdar published five and four articles, respectively.

When comparing our results to older studies, it was pointed out that most of the previous review papers discussed mainly focused on mental health. For example, Mamun (2021b) reviewed nine papers related to suicide and suicidal behavior in the context of Bangladesh. In contrast, our article is not limited to only mental health-related papers; instead, we investigate all Covid related articles on Bangladesh that used social media at any point. So, the range of research is broader in our study. Similarly, while Mamun (2021) reviewed seven articles on mental health issues during the pandemic, we analyzed 50 articles, including papers on mental health. Thus, our finding is based on more important data. Banerjee (2020) reviewed 13 papers related to COVID-19 from south Asian countries at the international level. Although the paper includes social media, it is only limited to mental health. But we took documents from almost all areas. One of the strengths of our study is that it covered the highest number of studies and analyzed data by software and manually.

The main limitation of our study is that we cannot include papers from local Bangladeshi journals which are not indexed under the web of science database. We first analyzed our data using the bibliometric package; it only supports papers from databases like the Web of Science, Scopus, or Publon. So, it was impossible to include articles related to our area but published in the Bangla language or those journals not listed in the databases mentioned before.

Our results suggest an exciting new avenue of study focused on social media and COVID-19. We research the context of Bangladesh; similar research could be done in other countries in South Asia or beyond. Moreover, as we could not include articles from local journals of Bangladesh, one could initiate a new investigation about these articles and can imitate our methodology and framework. Similarly, there could be more research to explore the impact and role of social media in other fields in the context of Bangladesh. Additionally, as our study found misinformation is one of the key research areas, and there were many publications on this issue, more research could be conducted. So far.

We found similar studies where the role of social media was investigated in the fields of tourism and public health. Asaduzzaman Khan et al., 2019; T. Rasul & Hoque, 2020. Our study will contribute to understanding the dynamics of research related to COVID-19 and social media.

## **Bibliography**

Abedin, M., Islam, M. A., Rahman, F. N., Reza, H. M., Hossain, M. Z., Hossain, M. A., ... Hossain, A. (2021). Willingness to vaccinate against COVID-19 among Bangladeshi adults: Understanding the strategies to optimize vaccination coverage. *PLOS ONE*, 16(4). <https://doi.org/10.1371/journal.pone.0250495>

- Ahmed, M. S., Aurpa, T. T., & Anwar, M. M. (2021). Detecting sentiment dynamics and clusters of Twitter users for trending topics in COVID-19 pandemic. *PLOS ONE*, 16(8). <https://doi.org/10.1371/journal.pone.0253300>
- Al-Zaman, M. S. (2021a). Prevalence and source analysis of COVID-19 misinformation in 138 countries. *IFLA JOURNAL-INTERNATIONAL FEDERATION OF LIBRARY ASSOCIATIONS*. <https://doi.org/10.1177/03400352211041135>
- Al-Zaman, M. S. (2021b). Social media and COVID-19 misinformation: how ignorant Facebook users are? *HELIYON*, 7(5). <https://doi.org/10.1016/j.heliyon.2021.e07144>
- Al Mamun, F., Hosen, I., Misti, J. M., Kaggwa, M. M., & Mamun, M. A. (2021). Mental Disorders of Bangladeshi Students During the COVID-19 Pandemic: A Systematic Review. *PSYCHOLOGY RESEARCH AND BEHAVIOR MANAGEMENT*, 14, 645–654. <https://doi.org/10.2147/PRBM.S315961>
- Alam, M. K., Bin Ali, F., Banik, R., Yasmin, S., & Salma, N. (n.d.). Assessing the mental health condition of home-confined university level students of Bangladesh due to the COVID-19 pandemic. *JOURNAL OF PUBLIC HEALTH-HEIDELBERG*. <https://doi.org/10.1007/s10389-021-01542-w>
- Ali, M., Uddin, Z., Banik, P. C., Hegazy, F. A., Zaman, S., Ambia, A. S. M., ... Ahsan, G. U. (2021). Knowledge, Attitude, Practice, and Fear of COVID-19: an Online-Based Cross-cultural Study. *INTERNATIONAL JOURNAL OF MENTAL HEALTH AND ADDICTION*. <https://doi.org/10.1007/s11469-021-00638-4>
- Almotawa, T., & Aljabri, D. (2020). Role of Social Media in Creating Awareness during COVID-19 Pandemic.
- Arafat, S. M. Y., Kar, S. K., Menon, V., Alradie-Mohamed, A., Mukherjee, S., Kaliamoorthy, C., & Kabir, R. (2020). Responsible Factors of Panic Buying: An Observation From Online Media Reports. *FRONTIERS IN PUBLIC HEALTH*, 8. <https://doi.org/10.3389/fpubh.2020.603894>
- Archambault, É., Campbell, D., Gingras, Y., & Larivière, V. (2009). Comparing bibliometric statistics obtained from the Web of Science and Scopus. *Journal of the American Society for Information Science and Technology*, 60(7), 1320–1326.
- Azlan, A. A., Hamzah, M. R., Sern, T. J., Ayub, S. H., & Mohamad, E. (2020). Public knowledge, attitudes and practices towards COVID-19: A cross-sectional study in Malaysia. *Plos One*, 15(5), e0233668.
- Banerjee, D., Vaishnav, M., Sathyanarayana Rao, T. S., Raju, M. S. V. K., Dalal, P. K., Javed, A., ... Jagiwala, M. P. (2020). Impact of the COVID-19 pandemic on psychosocial health and well-being in South-Asian (World Psychiatric Association zone 16) countries: A systematic and advocacy review from the Indian Psychiatric Society. *INDIAN JOURNAL OF PSYCHIATRY*, 62(9, 3), 343–353. [https://doi.org/10.4103/psychiatry.IndianJPsychiatry\\_1002\\_20](https://doi.org/10.4103/psychiatry.IndianJPsychiatry_1002_20)
- Bangladesh charts 9m new social media users. (2021, April 26). Dhaka Tribune. Retrieved from <https://www.dhakatribune.com/>
- Baniamin, H. M. (2021). Citizens' Initiatives for Crisis Management and the Use of Social Media: An Analysis of COVID-19 Crisis in Bangladesh. *PUBLIC ORGANIZATION REVIEW*. <https://doi.org/10.1007/s11115-021-00534-4>

- Basher, S. A., & Haque, A. K. E. (2021). Public policy lessons from the COVID-19 outbreak: How to deal with it in the post-pandemic world? *JOURNAL OF SOCIAL AND ECONOMIC DEVELOPMENT*, 23(SUPPL 2, 2, SI), 234–247. <https://doi.org/10.1007/s40847-020-00118-w>
- Begum, D., Roknuzzaman, M., & Shobhane, M. E. (2021). Public libraries' responses to a global pandemic: Bangladesh perspectives. *IFLA JOURNAL-INTERNATIONAL FEDERATION OF LIBRARY ASSOCIATIONS*. <https://doi.org/10.1177/03400352211041138>
- Booth, A., Sutton, A., & Papaioannou, D. (2016). Systematic approaches to a successful literature review.
- Casado-Aranda, L.-A., Sanchez-Fernandez, J., & Viedma-del-Jesus I, M. (2021). Analysis of the scientific production of the effect of COVID-19 on the environment: A bibliometric study. *ENVIRONMENTAL RESEARCH*, 193. <https://doi.org/10.1016/j.envres.2020.110416>
- Chao, M., Xue, D., Liu, T., Yang, H., & Hall, B. J. (2020). Media use and acute psychological outcomes during COVID-19 outbreak in China. *Journal of Anxiety Disorders*, 74, 102248.
- Chen, J., & Wang, Y. (2021). Social Media Use for Health Purposes: Systematic Review. *Journal of Medical Internet Research*, 23(5), e17917.
- Cook, D. J., Mulrow, C. D., & Haynes, R. B. (1997). Systematic reviews: synthesis of best evidence for clinical decisions. *Annals of Internal Medicine*, 126(5), 376–380.
- Cowley, L. A., Afrad, M. H., Rahman, S. I. A., Al Mamun, M. M., Chin, T., Mahmud, A., ... Shirin, T. (2021). Genomics, social media and mobile phone data enable mapping of SARS-CoV-2 lineages to inform health policy in Bangladesh. *NATURE MICROBIOLOGY*. <https://doi.org/10.1038/s41564-021-00955-3>
- Das, D. B. C., Bhuiyan, S. I., Ullah, A. S. M. W., Alam, M. Z., Mostofa, G. G., Hasan, K. Z., ... Alauddin, M. (2021). COMMUNITY PEOPLE PREPAREDNESS AND RESPONSE ON PREVENTION AND CONTROL OF COVID-19 BEST PRACTICE IN BANGLADESH. *ASIA PACIFIC JOURNAL OF HEALTH MANAGEMENT*, 15(4), 98–105. <https://doi.org/10.24083/apjhm.v15i4.499>
- Dhanani, L. Y., & Franz, B. (2020). Unexpected public health consequences of the COVID-19 pandemic: a national survey examining anti-Asian attitudes in the USA. *International Journal of Public Health*, 65(6), 747–754.
- Ferdous, M. Z., Islam, M. S., Sikdar, M. T., Mosaddek, A. S. M., Zegarra-Valdivia, J. A., & Gozal, D. (2020). Knowledge, attitude, and practice regarding COVID-19 outbreak in Bangladesh: An online-based cross-sectional study. *PLOS ONE*, 15(10). <https://doi.org/10.1371/journal.pone.0239254>
- Fu, H., Hereward, M., MacFeely, S., Me, A., & Wilmoth, J. (2020). How COVID-19 is changing the world: A statistical perspective from the Committee for the Coordination of Statistical activities. *Statistical Journal of the IAOS*, (Preprint), 1–10.
- Grant, M. J., & Booth, A. (2009). A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Information & Libraries Journal*, 26(2), 91–108.
- Holmes, E. A., O'Connor, R. C., Perry, V. H., Tracey, I., Wessely, S., Arseneault, L., ... Everall, I. (2020). Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science. *The Lancet Psychiatry*, 7(6), 547–560.

- Hosen, I., al Mamun, F., Sikdar, M. T., Abbasi, A. Z., Zou, L., Guo, T., & Mamun, M. A. (2021). Prevalence and Associated Factors of Problematic Smartphone Use During the COVID-19 Pandemic: A Bangladeshi Study. *RISK MANAGEMENT AND HEALTHCARE POLICY*, 14, 3797–3805. <https://doi.org/10.2147/RMHP.S325126>
- Hossain, M. I., Mehedi, N., Ahmad, I., Ali, I., & Azman, A. (2021). Psychosocial stress and trauma during the COVID-19 pandemic: Evidence from Bangladesh. *ASIAN SOCIAL WORK AND POLICY REVIEW*, 15(2), 145–159. <https://doi.org/10.1111/aswp.12227>
- Hossain, M. T., Ahammed, B., Chanda, S. K., Jahan, N., Ela, M. Z., & Islam, M. N. (2020). Social and electronic media exposure and generalized anxiety disorder among people during COVID-19 outbreak in Bangladesh: A preliminary observation. *PLOS ONE*, 15(9). <https://doi.org/10.1371/journal.pone.0238974>
- Islam, A. K. M. N., Laato, S., Talukder, S., & Sutinen, E. (2020). Misinformation sharing and social media fatigue during COVID-19: An affordance and cognitive load perspective. *TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE*, 159. <https://doi.org/10.1016/j.techfore.2020.120201>
- Islam, M. M., Islam, M. M., Ahmed, F., & Rumana, A. S. (2021). Creative social media use for COVID-19 prevention in Bangladesh: a structural equation modeling approach. *SOCIAL NETWORK ANALYSIS AND MINING*, 11(1). <https://doi.org/10.1007/s13278-021-00744-0>
- Islam, M. S., Kamal, A.-H. M., Kabir, A., Southern, D. L., Khan, S. H., Hasan, S. M. M., ... Seale, H. (2021). COVID-19 vaccine rumors and conspiracy theories: The need for cognitive inoculation against misinformation to improve vaccine adherence. *PLOS ONE*, 16(5). <https://doi.org/10.1371/journal.pone.0251605>
- Islam, M. S., Sarkar, T., Khan, S. H., Kamal, A.-H. M., Hasan, S. M. M., Kabir, A., ... Seale, H. (2020). COVID-19-Related Infodemic and Its Impact on Public Health: A Global Social Media Analysis. *AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE*, 103(4), 1621–1629. <https://doi.org/10.4269/ajtmh.20-0812>
- Islam, M. S., Sujan, M. S. H., Tasnim, R., Mohona, R. A., Ferdous, M. Z., Kamruzzaman, S., ... Pontes, H. M. (2021). Problematic Smartphone and Social Media Use Among Bangladeshi College and University Students Amid COVID-19: The Role of Psychological Well-Being and Pandemic Related Factors. *FRONTIERS IN PSYCHIATRY*, 12. <https://doi.org/10.3389/fpsy.2021.647386>
- Khan, Asaduzzaman, Uddin, R., & Islam, S. M. S. (2019). Social media use is associated with sleep duration and disturbance among adolescents in Bangladesh. *Health Policy and Technology*, 8(3), 313–315.
- Khan, Ashraf, Hassan, M. K., Paltrinieri, A., Dreassi, A., & Bahoo, S. (2020). A bibliometric review of takaful literature. *International Review of Economics & Finance*, 69, 389–405.
- Khan, Ayatullah, Kabir, K. H., Hasan, K., Acharyya, R. N., Islam, M., Sultana, R., ... Al Imran, S. (2021). Mental health impacts of COVID-19 outbreak and associated drivers among university students in Bangladesh. *MINERVA PSYCHIATRY*, 62(2), 55–64. <https://doi.org/10.23736/S2724-6612.20.02108-1>
- Khan, K. S., Ter Riet, G., Glanville, J., Sowden, A. J., & Kleijnen, J. (2001). Undertaking systematic reviews of research on effectiveness: CRD's guidance for carrying out or commissioning reviews. *NHS Centre for Reviews and Dissemination*.

- Kundu, S., Al Banna, M. H., Sayeed, A., Begum, M. R., Brazendale, K., Hasan, M. T., ... Khan, M. S. I. (2021). Knowledge, attitudes, and preventive practices toward the COVID-19 pandemic: an online survey among Bangladeshi residents. *JOURNAL OF PUBLIC HEALTH-HEIDELBERG*. <https://doi.org/10.1007/s10389-021-01636-5>
- Lazzini, A., Lazzini, S., Balluchi, F., & Mazza, M. (2021). Emotions, moods and hyperreality: social media and the stock market during the first phase of COVID-19 pandemic. *Accounting, Auditing & Accountability Journal*.
- Liu, P. L. (2020). COVID-19 information seeking on digital media and preventive behaviors: the mediation role of worry. *Cyberpsychology, Behavior, and Social Networking*, 23(10), 677– 682.
- Malik, F.-T.-N., Ishraquzzaman, M., Kalimuddin, M., Choudhury, S., Ahmed, N., Badiuzzaman, M., ... Al Mamun, M. A. (2020). Clinical Presentation, Management and In-Hospital Outcome of Healthcare Personnel With COVID-19 Disease. *CUREUS*, 12(8). <https://doi.org/10.7759/cureus.10004>
- Mamun, M. A. (2021a). Exploring factors in fear of COVID-19 and its GIS-based nationwide distribution: the case of Bangladesh. *BJPSYCH OPEN*, 7(5). <https://doi.org/10.1192/bjo.2021.984>
- Mamun, M. A. (2021b). Suicide and Suicidal Behaviors in the Context of COVID-19 Pandemic in Bangladesh: A Systematic Review. *PSYCHOLOGY RESEARCH AND BEHAVIOR MANAGEMENT*, 14, 695–704. <https://doi.org/10.2147/PRBM.S315760>
- Mamun, M. A., Akter, T., Zohra, F., Sakib, N., Bhuiyan, A. K. M. I., Banik, P. C., & Muhit, M. (2020). Prevalence and risk factors of COVID-19 suicidal behavior in Bangladeshi population: are healthcare professionals at greater risk? *HELIYON*, 6(10). <https://doi.org/10.1016/j.heliyon.2020.e05259>
- Mamun, M. A., Sakib, N., Gozal, D., Bhuiyan, A. I., Hossain, S., Bodrud-Doza, ... Pakpour, A. H. (2021). The COVID-19 pandemic and serious psychological consequences in Bangladesh: A population-based nationwide study. *JOURNAL OF AFFECTIVE DISORDERS*, 279, 462–472. <https://doi.org/10.1016/j.jad.2020.10.036>
- Marzo, R. R., Singh, A., & Mukti, R. F. (2021). A survey of psychological distress among Bangladeshi people during the COVID-19 pandemic. *CLINICAL EPIDEMIOLOGY AND GLOBAL HEALTH*, 10. <https://doi.org/10.1016/j.cegh.2020.100693>
- Mathrani, A., Sarvesh, T., & Umer, R. (2021). Digital divide framework: online learning in developing countries during the COVID-19 lockdown. *GLOBALIZATION SOCIETIES AND EDUCATION*. <https://doi.org/10.1080/14767724.2021.1981253>
- Moorhead, S. A., Hazlett, D. E., Harrison, L., Carroll, J. K., Irwin, A., & Hoving, C. (2013). A new dimension of health care: systematic review of the uses, benefits, and limitations of social media for health communication. *Journal of medical Internet research*, 15(4), e1933.
- Merigó, J. M., Mas-Tur, A., Roig-Tierno, N., & Ribeiro-Soriano, D. (2015). A bibliometric overview of the Journal of Business Research between 1973 and 2014. *Journal of Business Research*, 68(12), 2645–2653.
- Musa, M. N., & Husna, M. (2021). Will the mRNA Vaccines Interfere with One's DNA? *BANGLADESH JOURNAL OF MEDICAL SCIENCE*, 20(2), 463–464.

<https://doi.org/10.3329/bjms.v20i2.51567>

- Ozdemir, M. (2020). The Cultural Change of the Perception of Elderliness During Coronavirus Outbreak. *MILLI FOLKLOR*, (127), 46–58.
- Pasadeos, Y., & Renfro, B. (1992). A bibliometric analysis of public relations research. *Journal of Public Relations Research*, 4(3), 167–187.
- Qiu, R. T. R., Park, J., Li, S., & Song, H. (2020). Social costs of tourism during the COVID-19 pandemic. *Annals of Tourism Research*, 84, 102994.
- Rahman, M. A., Hoque, N., Alif, S. M., Salehin, M., Islam, S. M. S., Banik, B., ... Cross, W. (2020). Factors associated with psychological distress, fear and coping strategies during the COVID-19 pandemic in Australia. *GLOBALIZATION AND HEALTH*, 16(1). <https://doi.org/10.1186/s12992-020-00624-w>
- Rahman, M. S., Alam, M. A., Salekin, S., Belal, M. A. H., & Rahman, M. S. (2021). The COVID-19 pandemic: A threat to forest and wildlife conservation in Bangladesh? *TREES FORESTS AND PEOPLE*, 5. <https://doi.org/10.1016/j.tfp.2021.100119>
- Rashid, A. A., Idris, M. I., Zulkiflee, N. S., Yahaya, A. Y., & Ramesh, P. (2021). The Correlation of Social Media Activity and Engagement of a Health NGO with the Outcome of Fundraising Efforts During the COVID-19 Pandemic. *BANGLADESH JOURNAL OF MEDICAL SCIENCE*, 20(SI), S148–S154. <https://doi.org/10.3329/bjms.v20i5.55419>
- Rasul, G., Nepal, A. K., Hussain, A., Maharjan, A., Joshi, S., Lama, A., ... Sharma, E. (2021). Socio-Economic Implications of COVID-19 Pandemic in South Asia: Emerging Risks and Growing Challenges. *FRONTIERS IN SOCIOLOGY*, 6. <https://doi.org/10.3389/fsoc.2021.629693>
- Rasul, T., & Hoque, M. R. (2020). A review of social media research in the tourism and hospitality Industry through the lens of social structure. *Tourism Recreation Research*, 45(3), 425–427.
- Ripon, R. K., Mim, S. S., Puente, A. E., Hossain, S., Babor, M. M. H., Sohan, S. A., & Islam, N. (2020). COVID-19: psychological effects on a COVID-19 quarantined population in Bangladesh. *HELIYON*, 6(11). <https://doi.org/10.1016/j.heliyon.2020.e05481>
- Sharif, N., Opu, R. R., Alzahrani, K. J., Ahmed, S. N., Islam, S., Mim, S. S., ... Dey, S. K. (2021). The positive impact of social media on health behavior towards the COVID-19 pandemic in Bangladesh: A web-based cross-sectional study. *DIABETES & METABOLIC SYNDROME-CLINICAL RESEARCH & REVIEWS*, 15(5). <https://doi.org/10.1016/j.dsx.2021.102206>
- Shek, D. T. L. (2021). COVID-19 and quality of life: Twelve reflections. *Applied Research in Quality of Life*, 16(1), 1–11.
- Sikdar, K. M. Y. K., Anjum, J., Bahar, N. B., Muni, M., Hossain, S. M. R., Munia, A. T., & Al-Hossain, A. S. M. M. (2021). Evaluation of sleep quality, psychological states and subsequent self-medication practice among the Bangladeshi population during COVID-19 pandemic. *CLINICAL EPIDEMIOLOGY AND GLOBAL HEALTH*, 12. <https://doi.org/10.1016/j.cegh.2021.100836>
- Tsao, Shu-Feng; Chen, Helen; Tisseverasinghe, Therese; Yang, Yang; Li, Lianghua; Butt, Zahid A (2021). What social media told us in the time of COVID-19: a scoping review. *The Lancet Digital Health*, (), S2589750020303150-. doi:10.1016/S2589-7500(20)30315-0

Wright R, Brand R, Dunn W, Spindler K. (2007). How to write a systematic review. *Clin Orthop Relat Res.* 455:23–29. <http://www.ncbi.nlm.nih.gov/pubmed/17279036>

Yesmin, S., & Ahmed, S. M. Z. (2021). Infodemic surrounding COVID-19: Can LIS students recognize and categorize ``problematic information{}`` types on social media? *DIGITAL LIBRARY PERSPECTIVES.* <https://doi.org/10.1108/DLP-03-2021-0020>



# **Turkey-US Relations (2016-2020): Transformation of the Asymmetrical Alliance**

**Sezin İBA GÜRSOY\***

## **1. Introduction**

The alliances which have long been recognized, are usually understood as a way for states to aggregate military capabilities in the face of a common threat. Following the end of the Second World War, Turkey - US relations, which advanced under the Truman Doctrine of 1947 and the Marshall Plan of 1948, basically began as a security partnership in the atmosphere of the Cold War and Soviet threat; and was institutionalized with NATO membership in 1952. An asymmetric alliance has emerged between the two countries, the general nature of which is security concerns, where cooperation on economic, trade, and military issues has evolved over time.

Through the lens of asymmetrical allies, the purpose of this article is to try to analyze the evolution of bilateral relations between the US and Turkey. In this article, which focuses on the latest period (2016-2020) of Turkey-US relations which has a history dating back almost to the foundation of the Republic, the historical course of the relations was first examined within the conceptual framework of the asymmetric alliance. In doing so, the foreign policy orientations of the Justice and Development Party, which has been in power in Turkey for almost 20 years, were utilized. In this context, crises and changes, particularly those arising following the election of Trump, in Turkish-American relations were addressed, and inferences were made regarding the reasons for the erosion of relations and how the parties acted in the current conditions.

## **2. Literature Review and Analytical Framework**

Alliances are conceptualized as commitments to deter military attacks from enemies (Morrow 1991; Smith 1998). The alliance is defined as “the state of being allied,” or “a bond or connection between families” (Merriam-Webster). International relations literature has in fact drawn attention to the importance of alliances in world politics. Alliance theories are traditionally dominated by the realist and neorealist schools in the scholarly literature. Indeed, several studies come aimed at explaining why states form alliances, when states ally and which alliance—given certain conditions—can we expect to come about. For instance, Walt (1990) thought that states seek allies not to balance power but, rather, to balance threats. According to Martin Wight, the function of an alliance is to “reinforce the security of the allies or to promote their interests in the external world” (Wight, 1978). Glenn Snyder (2007) states that alliance management “involves pursuing both common interests and competitive interests”.

“Asymmetric alliances” usually consist of parties that derive their benefits from different interests in accost-benefit analysis. Asymmetric alliances are defined as alliances between states with dissimilar powers, often between great powers and weak states. In his 1991 study, James Morrow famously argues that asymmetric alliances are more likely than symmetrical alliances to continue to provide net benefits to its members as the capabilities and interests of both sides vary over time. According to him asymmetric alliances provide security to weak states and autonomy to strong states. (Morrow, 1991). For bilateral or multilateral alliance partners with equal capabilities, control is usually negotiated through some form of mutual accommodation. For asymmetric alliances if the smaller ally depends on the stronger member to provide certain benefits (e.g., security and prestige), then the stronger one enjoys a great leverage (Cha, 2009-2010). In asymmetric alliances, the boss is unlikely to “need” any of its allies in the way that great powers in symmetric alliances do, simply due to the power disparity between the parties (Waltz, 1979; Snyder, 1997). However, some allies will have “specific assets” that the boss has the hard time finding elsewhere (Lake, 1999) such as its geostrategic location or the economic and military resources it brings to the alliance. Based on this, Turkey is an ally that stands out for the United States with its geopolitical position.

This article aims to analyse how the bilateral relations between the two different sized countries (Turkey and US) have changed based on an asymmetric alliance. Since the beginning of the 20th century, the United States has been a major power country, while Turkey is considered a regional power with a deep-rooted imperial heritage from its past. When the relationship between countries is considered particularly in terms of power, the parties are asymmetrical. During the Cold War, this asymmetric relationship worked smoothly in line with “common interests”. In this regard, the relationship between the two countries has developed as an instrumental and pragmatic relationship under real political conditions (Doğan, 2019). The general benefits that brought the US and Turkey closer together during the Cold War have weakened since the new world order following the Cold War. In this context, it was felt that while common interests and goals decreased, Turkey’s interests in its region began to outweigh them. This inevitably led to changes in Turkey’s relations with the US. In this new world order, the US, trying to maintain its position as a superpower on one side, was followed by a Turkey, on the other, which had difficulty aligning its regional interests with those of the United States. Sander describes this period as a “global-regional conflict of interest ” for the parties (Sander, 2006).

### **3. Development of Turkey-US Relations and Asymmetrical Alliance**

Considering the historical course of Turkey-US relations, it is first necessary to define the places of the parties in the international arena. Oral Sander (2006) emphasized the importance of continuity and change between the parties for a better understanding of the nature of Turkish-American relations. In this respect, the Republic of Turkey can be defined as a NATO member established on the ruins of the Ottoman Empire and following the steps of its predecessor, giving priority to Westernized modernization policies. During the Cold War, Turkey became an integral part of the Western security system. The United States, on the other hand, is described as a “superpower” from a cultural, military, and economic point of view, which plays an important role in the spread of liberal democracy around the world with its own values and methods (Lefebvre, 2005). Another determination in the identification of the parties belongs to Ramazan Gözen:

“One is a superpower playing a leading role in world politics, the other is a medium-sized state trying to be influential in its own region; one is the protagonist of the world economy, the other is a developing country dependent on this economic order; one is a permanent member who shapes international policy with the power of veto in organizations such as the UN, and the other is a member who has no influence in this status in almost any international organization; one is the founder and patron of the NATO alliance, the other a member who has taken refuge in this alliance to provide security; one is a periodic idealist which prides itself on being the representative of democracy within itself and in the world, and from time to time tries to spread these values, the other is a developing country stuck between the Middle East and the EU/West, which has not yet fully established its democracy; one is a hegemon that has influence all over the world, from Europe to Asia, from the Balkans to the Middle East, and the other is a candidate for developing its presence in the regions around it” (Gözen, 2017).

The general foreign policy orientation of the Republic of Turkey has been towards Westernism until the end of World War II (Oran 2001). During this period, the representation of Turkey in different European institutions was seen by the elite as an engagement of the Western identity of the country, and the close partnerships established with Europe were seen as a mission of civilization above all else (Eralp 1994). The main factor that led Turkey-US relations during the Cold War was the factor of stability. During the Cold War, Turkey played an important role in the American containment policy as the largest contributors to NATO and as a buffer state against the Soviet Union. For instance, it hosted a substantial number of U.S. forces. According to Gözen, this alliance is based on the continuity and predictability of Turkey’s role in the West, its function in NATO and other organizations, and its political system that will ensure this (Gözen, 2017).

After the disappearance of the Soviet threat that motivated and maintained the Turkish-American alliance, it was thought that the stability factor was damaged, which would accelerate the end of the alliance (Reynolds, 2018). After the first Gulf War of 1991, the fact that European members of NATO did not treat Turkey as warmly as expected reinforced the idea that relations with the West were eroding. As Özel (2019) point out Turkey's search for a defensive missile system goes back to the Gulf War. After this, Turkey's security policy has been to increase its own military capacity to reduce dependence on allies. Again, during this period, Turkey has aimed to become a profitable transit country for transporting oil and natural gas from the newly independent central Asian republics to world markets, using its geopolitics. Ankara supported Baku-Tbilisi-Ceyhan (BTC) Crude Oil pipeline project, inaugurated in 2005, and Turkey as a only NATO member state in the region has a significant advantage in an environment of economic competition (Özel, 2019). In 1998, Foreign Minister Ismail Cem stated that the foundation of Turkey's ability to be a transit country is in NATO, and that NATO's security guarantee will also include BTC, despite the clear advantages of the Iranian route (Güvenç and Özel, 2012). Michael Reynolds (2018) claims that during this period, America's impasse with Iraq and Iran and its desire to expand NATO, rather than disband it, led Washington to attribute value to Turkey throughout the 1990s. During this period, Turkey has been promoted to the forefront from being a member of the wing for Washington due to its location at a critical crossroads in the middle of the Balkans, the Middle East, and the Caucasus, all of which are unstable and unsafe regions (Özel, 2019). Unlike the US, Europeans viewed Turkey's proximity to all these regions as a potential problem, rather than as an advantage. This strategic approach of the EU also explains the fact that Turkey was not granted candidate country status at the 1997 Luxembourg summit. This situation was only improved two years later thanks to intensive lobbying by Washington (Tocci, 2011). As Uzgel noted, the United States supported Turkey's EU membership in the 1990s, raising this issue in negotiations at both the level of foreign ministers and the level of American presidents. (Uzgel 2001). Behind the increasing support for Turkey's EU membership in these years is the idea that EU candidacy will bind Turkey more tightly to the West. This, in turn, is important for a reliable alliance. In the post-Cold War era, despite some initial confusion as to what its mid- to long-term role might be, Muftuler-Bac (2005-2006) states that Turkey has become a valuable partner for the United States.

By the 2000s, the economic crisis experienced by Turkey was dragging Turkish-American relations into a different direction, while the 9/11 created negatives in the US approach to the Islamic world from the point of view of domestic and foreign policy. According to Gözen, the September 11 attacks led to radical revisions in the US's view of Turkish democracy and political Islam, especially in relations with Turkey (Gözen, 2017). The strategic partnership gained new momentum following 9/11 (Müftüler-Bac, 2005-2006). In its struggle to get out of the crisis, Turkey has found significant support from both the United States and the EU, in addition to the provision of an IMF loan. The EU has shown this support more clearly with its decision at the 2002 Copenhagen summit to commence membership negotiations. This summit, held on the eve of the 2003 Iraq War, took place just after the Justice and Development Party (AKP) in Turkey power with a major electoral victory. AKP which emerged from the hereditary anti-Western Islamist movement, has shown that Turkey has shed its Islamist past, aimed at economic, political, and administrative reforms, and that its aim was EU membership, with an astonishing determination and discipline in the first years of rule. (Özel, 2019).

Worried about being left alone by its allies after the 9/11, Turkey's strategic importance has gained new dimensions, especially following the US invasion of Iraq in 2003. Although the March 1st resolution brought Turkey-US relations into a significant crisis, the destabilization of the Middle East in this period made it possible to establish a new environment. Reynolds (2018) argues that this environment provides Turkey with an unprecedented scope of activity and even allows it to act in some areas according to new regional goals. Tarık Oğuzlu (2011) defines this new foreign policy orientation as "Turkey-centric Westernization". Oğuzlu claims that because of the changes in the nature of the international global order since the end of the Cold War, after the September 11 terrorist attacks, medium-sized countries such as Turkey have been allowed to play more effective and independent roles in their own regions (Oğuzlu, 2011). In fact, the stripping of

US from its traditional role in mediating these conflicts can be considered as an opportunity for regional actors, a space to establish their own will.

In addition to its geopolitics, Turkey's domestic order has also become a globally valued asset during this period. Despite all its shortcomings, as a secular democracy, Turkey's ability to integrate a Muslim-majority community into the global economy, its membership in NATO, its membership negotiations with the EU, made Turkey a very attractive profile at a time when terrorism was an important security threat with the 09/11 attacks (Özel, 2019). So much so that the country's rising profile and growing popularity globally have been rewarded with its election to the United Nations Security Council as one of the provisional members of the European contingent. This period also allowed the AKP to achieve unprecedented economic growth between 2002 and 2010. Therefore, these years have been recorded as a period when Turkey has shown extraordinary success economically. With its growing economic strength, Turkey has also increased its material contribution to NATO. According to 2012 data, Turkey is considered among the 10 highest contributors to the NATO budget (Güvenç, 2015). With this behavior, Turkey has once again demonstrated its commitment to its traditional allies, the United States and NATO, for defense cooperation. During the same period, it focused on relations with the West and carried out broad political reforms and economic transformation moves in pursuit of full membership in the European Union. Reforms related to the transformation of civil-military relations, the rule of law and civil liberties are of great value.

Despite all this transformation, several negative attitudes emerged in the Union regarding Turkey's full membership in the EU at that time. For example, although Turkey's efforts to mediate conflicts in the Middle East and its position in foreign policy are almost in line with the EU's policies, two influential members of the Union, Germany, and France, have clearly expressed their reluctance towards Turkey's full membership. After all, the rejection of the European Constitution in a referendum in 2005 in the Netherlands and France, and the subsequent reaction to immigrants, have sealed the fate of further expansion for some time. The subsequent refugee crisis froze relations, Turkey's chances of membership significantly decreased, and even when looking at the latest period, relations have reached an impasse (Özel, 2019).

#### **4. From Asymmetrical Alliance to Model Partnership: Turkey-US Relations in Obama Era**

A new dynamism has developed in Turkey-US relations since the second half of the 2000s. During this period, bilateral relations evolved from an asymmetric alliance to an alliance based on the "Model Partnership". According to Nuh Yılmaz (2011) this concept is premised on the recognition that Turkish-American relations are very valuable and that the old framework, which threatens the bilateral relationship itself, needs to change. After Obama took over the presidency in 2009, his first foreign visit to Ankara and his historic speech in Parliament gave impetus to this partnership. While helping to bolster bilateral U.S.-Turkish relations, Obama's speech has a positive message of Turkey's unique role as a member of the Western community of nations as well as of the Muslim world. Obama embraced Turkey as a much-needed role model during the so-called "Arab Spring" that broke out in 2010-11 as an example of a Muslim-majority country with a well-functioning market economy and secular democracy (Özel, et al, 2017). The vision of a model partnership takes the Turkish- American relationship a step further than ever before. In this direction in 2009-10, an outstanding performance in relations was observed, and intense communication traffic and constant contact between leaders attracted attention.

In this new era, the assumptions of realistic theory, such as hard security and hard power, have lost their old weight in Turkey's Security Policy and have been replaced by a security understanding that weighs on the soft power that the AKP uses for conflict resolution. In addition, during this period, Turkish foreign policy, based on the doctrine of "strategic depth" with the principle of "zero problems with neighbours", aimed at changing the regional and global perception of Turkey, garnered great attention around the world (Özel, 2019). In his 2017 article, Ramazan Gözen argued that the first steps of the "Model Partnership" were the appointment of

Ahmet Davutoğlu to the Ministry of Foreign Affairs in 2009. In this way, the architect of the era, who was popular in Turkish foreign policy in the form of a “zero problem policy with neighbors” based on developing and restructuring relations with Middle Eastern countries, also took responsibility for foreign policy.

A closer look at the US-Turkey alliance management demonstrates that the divergence of threat perceptions between the allies have increased since 2009. The reshaping of relations between the parties in 2009, the Arab uprisings in 2011 and the subsequent Syrian war combined with the internal dynamics of Turkey, created a fertile environment for nationalist and militaristic policies. In fact, Davutoğlu’s approach has been replaced by a security-oriented vision (Buhari-Gülmez, 2020). Although democratization reforms on the road to the EU slowed during this period, the Arab Spring has made Turkey a potential “model” country for the transformation of Arab countries. The first political consequence of the turbulence of this period is the rise of the Muslim Brotherhood in various countries, with which the AKP has historically had close relations. Relations deepened with the coming to power of the Muslim brothers, and a historical peak took place in a short time (Yeşilyurt, 2020). During this period, the drifting of Syria into a civil war also encouraged Ankara’s desire to establish regional hegemony on the way to shaping the region. Turkey’s desire to become a regional power has found a suitable environment after the failures of the United States in the region, immediately after the Arab uprisings (Özel, 2019).

Meanwhile, the financial and economic crisis in 2008 weakened both Europe and the United States and caused them to lose their attractiveness. While this relative decline in US power, the end of the unipolar world and the gradual formation of a multipolar international system allowed Turkey to redefine its national interests despite the US. (Özel, 2019). This new situation strengthened the tendency and thinking of acting independently of the United States, breaking away from the alliance that became evident in the post-Cold War era, but continued to be suppressed. During this period, it is observed that Turkey’s interests and actions are sometimes compatible with those of the United States, and sometimes do not coincide. An example of the different interests and actions of the allies is their policy towards Iran. While Trump administration policy is to isolate the country from the international community, Turkey prefers to integrate Iran into the global system (Turan, 2018). As a result, differences in interests and threats have led to the erosion of mutual trust in the alliance. Buhari-Gülmez (2020) argue that the difference in threat perceptions between the allies has increased since 2009. Turkey’s creation of its own foreign policy priorities and the conflict of these priorities with US interests in the Middle East, has plunged Turkey-US relations into a deep depression.

## **5. Tensions in Turkey-US Relations Post 2016**

As mentioned above, the basis of Turkey-US relations as an allies is a commitment to common threat and benefits. However, the recent conflicts between the parties regarding these interests and values are pushing them to different poles. Especially after the election of Donald Trump as president of the United States in 2016, with the America-First mindset there have been various crises within the traditional alliances.

With the Trump administration in charge, Israel’s security concerns have begun to occupy a broader place on the U.S. agenda. Despite this, Trump has sought to withdraw from Syria, avoiding direct military intervention in the Middle East. He continued Obama’s policies of eliminating DAESH which were his primary agenda. (Sarı Ertem and Karadeniz, 2019). This, in turn, was one of the important reasons that increased distrust and tension between the parties of the alliance. The lack of overlapping interests in the Middle East is one of the reasons that put Turkey-US relations in turbulence. Because the Central Command (CENTCOM) supports and cooperates with the People’s Protection Units (YPG) the Syrian extension of the PKK, its arch-enemy, which Turkey has fought since 1984, and which the United States and the EU recognize as a terrorist organization. The Central Command relies on the YPG as a fighting force, and the United States does not recognize the YPG as a terrorist organization. This attitude of the United States,

the determination and arming of the YPG, an arm of the PKK, which Turkey has fought for many years, as a local ally, albeit at a tactical level, is an important element that has led to a stalemate in relations between the parties.

Another important issue that has not been overcome between the parties is the failure to extradite Fethullah Gülen, the alleged mastermind of the July 15 coup attempt, to Turkey. On the one hand, the attitude towards the coup attempt and on the other hand, the YPG crisis between two countries has opened the door to a new rapprochement with Turkey, and a deep sense of distrust between the parties. The rapprochement was embodied by the agreement between Turkey and Russia on the purchase of the S-400 anti-aircraft missile system.

Against the background of the rapprochement between Turkey and Russia, the AKP government, which aimed for EU membership in the early years of its power and acted very carefully in its relations with the West, is reminiscent of the position that emerged after the fall of the Soviet Union. This position, Eurasianism, has been seen in Turkish foreign policy from time to time in secret and from time to time openly. The Eurasian approach advocates the point of isolation with the West, beyond Oğuzlu's Turkey-based Westernism. As Toni Alaranta noted "The Eurasian approach has many variables in Turkey, but three main characteristics can be defined: First, the post-Cold War bipolar system significantly changed Turkey's position in world politics, second, the claim that 'Anglo-Saxon civilization' is in deep crisis, and finally, Turkey's traditional Western orientation becoming dysfunctional and 'Eurasia' created a meaningful strategic alternative" (Alaranta, 2018).

This recollection of the Eurasian approach was mainly due to the instrumentalization of anti-Western rhetoric within the country after resentment towards the West and frustration with the EU. The recent increase in nationalist and strong anti-Western sentiment in Turkish domestic politics has had a significant impact on Turkey's security policies. In this context, at a time when the USA sees China as an important competitor and relations with Russia are becoming more turbulent, the Eurasian approach of the Turkish government is also an indication that the United States and Ankara evaluate international issues in different ways. (Dalay, 2021) Turkey is thought to be moving towards a strategic partnership with Russia and Iran to diversify its logistics and military arms purchases and to diversify its dependence beyond NATO (Düzgüt et al, 2020). A visible step in this alliance, which will also trigger a deterioration in Turkey-US relations, is Ankara's shift towards making its defense choices in favour of Russia rather than NATO. Turkey's signing of an agreement with Russia for the purchase of the Russian S-400 missile defense system in September 2017 is considered an unprecedented move by a NATO country. The purchase of the S-400, which cannot be integrated with NATO air defense systems, is still on the agenda as a significant political problem in terms of Turkey-US relations. Politically, Ankara turning to a non-NATO option as part of such a costly defence project also calls into question Turkey's credibility as a NATO member. Senem Aydın Düzgüt et al (2020) claims that the decision to purchase the S-400 triggered Turkey's withdrawal from F-35 program, which produces the fifth-generation fighter jet, and reduced Turkey's ability to counter Russian air power.

When approached militarily, Turkey needs an advanced air defense system. In fact, Turkish Foreign Minister Mevlüt Çavuşoğlu stressed that NATO protects only 30 percent of Turkish airspace and that Turkey needs additional air defense systems to protect its national security (Hurriyetdailynews). According to a 2018 report by The Economist, Turkey will take delivery of 116 stealth fighter jets that will form the mainstay of NATO's air power capacity over the next 30 years as part of the F-35 program (Economist, 2018). Kasapoğlu and Ülgen (2018) states at the EDAM report that air attacks deep in enemy territory, network-centric operations and enemy airspace penetration capabilities will become increasingly important as A2/AD sites around Turkey grow. As part of Turkey's defense needs, the F-35 system has a very important executive role, especially in air-to-air combat with advanced features. In fact, it is believed that Turkey will be in a unique position if it has the S-400 and F-35 at the same time, and Russia can profit from this information. This, in turn, means that Russia is finding ground to make more use of the declining Turkish-US relations. In addition, it is estimated that the combined operation of the F-35 and S-400 systems will technically pose significant risks not only to Turkey, but also to

all current and future aircraft operators.

In addition, Kasapoglu and Ülgen (2018) have revealed that following the S-400 agreement, Ankara is interested in the joint production of future S-500 systems. The authors believe that the procurement of tactical Pantsyr-S1 systems (SA-22 in NATO terminology) or recently developed variants of this initiative could bring Turkey's relations with NATO and even the United States to a standstill. In fact, considering these developments, there are also thoughts that Turkey has given up its determination to remain in NATO (Beyoglu, 2020). Steven Cook (2018) of the Council on Foreign Relations (CFR) openly stated that "Turkey is no longer an ally or a partner", revealing that the two allies are bound by common interests, but relations are full of uncertainty and insecurity.

During the S-400 debate between the parties, statements were made in the Press that Ankara would cooperate with EUROSAM, a Franco-Italian consortium, based on the joint production to develop long-range air and missile defence systems. According to the BBC's report, the consortium, which includes Italy-France-Turkey, has announced that air defence systems will be produced and developed in the mid-2020s. This agreement emerges to strengthen mutual trust and solidarity between the parties. These negotiations demonstrate Turkey's commitment to NATO (Sarı Ertem and Karadeniz, 2019). Compatible with the NATO missile shield system, this project will harmonize Turkey's air and missile defence with a higher network and will be able to integrate it into a multi-layered structure that can correspond to each stage (Kasapoğlu, 2017). While the global epidemic has not allowed the development of this project.

In this tense atmosphere, the most concrete crisis among the allies is the matter of the trial of the American Pastor Andrew Brunson. The detention of Pastor Brunson for allegedly "engaging in activities that threaten national security" has caused increased tensions in Turkish-US relations. In addition to President Trump's angry tweets and the imposing of economic sanctions on Turkey, the US Treasury's measures against the two ministers has caused the value of the Turkish lira to fall (Özel, 2019). Relations between the allies have been exacerbated by the depreciation of the Turkish lira by almost 40 % against the US dollar as of November 2020 (Sarı Ertem and Karadeniz, 2019).

Another important development in Turkey-US relations during the same period is the negative attitude of the US Congress towards Turkey on the Armenian issue. The passing of a bill by overwhelming majority in the US House of Representatives, recognizing the 1915 Armenian deportation as genocide is the embodiment of this attitude (Doğan, 2019). Although not legally binding, the adoption of Armenian bills, especially on this issue, in which the Turkish nation is sensitive, has added a new issue to the problems between the parties.

In fact, the influence of the US in the Middle East has begun to decline because of the polarization within itself. In fact, according to the 2020 Munich Security Report, which supports this judgment, there is a rapid decline in the ability and willingness of the United States to shape events in the Middle East. In fact, this leaves a vacuum in the region that can be filled by other powers such as Russia, Iran, and Turkey. In this context, Turkey is organizing cross-border military operations against terrorist organizations such as YPG/DAESH to ensure its border security and the territorial integrity in the region. The first of these was the operation named Euphrates Shield in August 2016. This was followed by Operation Olive Branch in January 2018. Finally, "Operation Peace Spring", which was the main agenda item of Turkey-US relations in October 2019 was initiated by the Turkish Armed Forces in northern Syria and supported by the Syrian National Army (SNA) soldiers to destroy the terror corridor that is being attempted to be created on the southern border of Turkey and to bring peace and tranquillity to the region (Çopur, 2019). Turkey, as a NATO member, has carried out all three operations with its own means and capabilities. But then Trump's decision to withdraw US troops from the region before the start of Operation "Spring Peace" paved the way for Ankara during the operation. Although this initiative has been interpreted positively in terms of relations, the White House's decision to sanction Turkey in response to the operation, consisting of several articles, has brought relations to a standstill. As a result, in response to this language of sanctions and US support for the YPG in the

region, Turkey has also distanced its strategic interests from the West.

## 6. Conclusion

The Republic of Turkey has shown a tendency towards Westernization since the final years of the Ottoman Empire, and its socio-political and strategic identities are designed to be Western. Although Turkey's pursuit of socio-political Westernization has weakened over time, its Western strategic identity has not been fundamentally questioned. However, the asymmetrical feature of the historical structure of the Turkish-US alliance, which also forms the main framework of the study, the imbalance of forces in relations, or the difference between a superpower and a medium-sized power, did not appear as a problem during the Cold War. Despite the asymmetry in their size, population, and military prowess, US-Turkey relations were driven by common security interests; the sense of security towards the common enemy maintained the asymmetry of the alliance. Cooperation for security is analysed as a motivation for the sides. The right question to ask is whether there are common security threats and interests between the two countries, despite this strategic partnership undergoing a significant transformation today.

Numerous issues, from the PKK/YPG problem, to the failure of Gülen's extradition request, to the sanctions packages that in succession implemented by Congress, to the arrest of Pastor Brunson, from the S-400 / F-35 crises to the disagreements on Operation Peace Spring, have created serious cracks in Turkish-American relations since 2016. These developments, and the gap that Russia has created between Turkey and its Western partners, have also led to the erosion of the NATO alliance. Economic sanctions imposed on Turkey and the consequent depreciation of the Turkish lira against the exchange rate have widened the relationship between the United States and Turkey more than ever. The result is the formation of an image of Turkey, which is constantly moving away from the West.

Differentiation of common interests in the region, the deterioration of Turkish-US relations intensified the search for autonomous space, creating a foundation for turning towards various "non-Western" or "anti-Western" alliances. Although Turkey is part of the Transatlantic Security System, it has not only rejected the West's dominant position in the world order, but also advocated that developing countries such as Turkey be seen as players who should participate in the first league of power games. (Özel, 2019). Turkey's westernization is an important characteristic in the context of its foreign policy. However, it is not true to say that the Europeanization and Westernization of Turkish foreign policy stems from Turkey's desire to prove its European/Western identity. Oğuzlu claims that this plays a decisive role because of real political concerns (Oğuzlu, 2011). However, the climate of distrust that Turkey is experiencing today in its relations with its Western partners has been clearly revealed. The frustration with the EU and the US response following the July 15, 2016 coup attempt partly explains this situation. In any case, Turkey's EU membership also seems to be on hold now. Even the tension between France and Turkey, an important member of the EU, has risen to a higher level through a war of words between leaders.

Although the Trump-Erdoğan personal relationship has a positive impact on Turkish-American relations, it is impossible to say that there has been a complete normalization. Deep and rooted problems between the parties still stand out today. With Biden winning the 2020 election, one wonders towards which direction relations will evolve. It is a well-known fact that Biden will inherit a weakened U.S.-Turkey relationship that has been steadily declining with growing tensions for almost 10 years. One of the most important issues that will determine the course of relations for the coming period is still the S-400 missile defense system that Turkey procured from Russia. The corona virus can be considered to have created a time that could repair Turkey-US relations. In this direction, increasing diplomatic efforts to solve structural problems between the United States and Turkey should be one of the priority issues for Turkey. İlder Turan (2018) offers several recommendations to ensure that relations between the United States and Turkey are not allowed to deteriorate beyond repair. At the beginning of these recommendations are the methods



of senior leaders. As we often encounter, leaders should allow relevant government agencies to work to develop policy alternatives and implement policies, rather than conduct policy at the highest level with Twitter posts. However, it is especially important that economic tools are not used to address political problems to regulate relations. Finally, Turan believes that encouraging non-governmental organizations such as think tanks and business associations to do more work to help the public of the parties to be aware of not only the problems between them but also the common interests will be beneficial in terms of reviving the relations (Turan, 2018).

After 2020, which has gone down in history as a difficult year for the world, the new process may be an opportunity to reconsider relations with the epidemic. In particular, the United States should take the opportunity to revive U.S.-Turkey relations under the presidency of Joe Biden following the November 2020 elections. Turkey, on the other hand, should re-visit its options and reorganize its orientation while questioning its understanding of strategic Westernism. In contrast to the post-Cold War era, Western strategic identity with the return of geopolitics no longer sets high democratic standards as a prerequisite. Therefore, Turkey should try to find solutions to its differences with the EU as well as with the United States, to achieve better communication and to produce more realistic solutions to security and strategic interests.

Turkey needs alliance connections to manage its security interests properly. Oğuzlu (2011) considers the solution of the Arab - Israeli conflict as important for Turkey as cooperation with Russia for regional stability as defeating radical religious terrorism. However, despite Turkey's efforts to conduct strategic cooperation with Russia, this does not mean a break from the West. According to the results of the 2017 report prepared by the EU for the FEUTURE (Future of EU-Turkey Relations) project sees Turkey as an important partner in the EU's proactive projection of European values, or at least a bulwark against the ultimate identity-related threat to radical Islamist terror for European citizens (Özel et al, 2017). During the post-epidemic recovery period, Turkey can also find cooperation that will restore its economy in trade with European countries. Therefore, as a group of academics led by Arısan-Eralp pointed out, Turkey-EU relations need to be reorganized on a consistent, sustainable, and realistic basis (Arısan-Eralp et al, 2020). There is interdependence between the parties. Turkey depends on the EU mainly for economic and commercial reasons and, above all, for international economic credibility. On the other hand, the EU needs increased cooperation with Turkey to ensure security and stability in its immediate vicinity. It is obvious that new definitions are needed that will stop relations with the EU from being in a state of constant crisis.

Domestic and regional realities in the transatlantic partnership and changing global system led Turkey to repair its relations with the West compared to other alternatives and offer the option of closer ties to Transatlantic ties. In this, the most effective way is to strengthen its position within NATO. NATO membership and Turkey's continued Western orientation are important both in terms of rhetoric and in terms of specific policy measures. A strong partnership is important for the national interests of both Turkey and the United States. Turkey is a key U.S. ally in the war on terror, especially given its geostrategic position in one of the world's most unstable corners. For all these reasons, it is assumed that the parties will have to "reset" in their relationship. If a reset is to be mentioned, from Turkey's point of view, the United States will need to show more sensitivity to Turkey's concerns and somehow understand its desire to act more autonomously. In this context, if Turkey retains its strategic Western identity, it can assume critical and constructive roles under appropriate circumstances. All these preferences will also have meaningful consequences for each actor. However, at this point, to define the relationship, it is necessary to go beyond conceptual tool sets such as an asymmetric alliance, strategic relationship, or model partnership, and define goals and expectations in a new and clear way.

## Bibliography

- Alaranta, T. (2018) A "Eurasian Turn" in Turkish Foreign Policy? Not Likely, Available at [Http://Turkeyanalyst.Org/Publications/Turkey-Analyst-Articles/Item/594-A-Eurasian-Turn-In-Turkish-Foreign-Policy?-Not-Likely.Html](http://Turkeyanalyst.Org/Publications/Turkey-Analyst-Articles/Item/594-A-Eurasian-Turn-In-Turkish-Foreign-Policy?-Not-Likely.Html) (accessed 17.10.2020)
- Aybet, G. (2020) Turkey, Nato, And The Future Of The Transatlantic Relationship In A Declining Liberal Order, *Turkish Policy Quarterly*, 19 (2), 19-40.
- Beyoglow, K. (2020) Turkey and The United States On the Brink: Implications for NATO and The US-Turkish Strategic and Military Partnership, Strategic studies Institute, Available at <https://publications.armywarcollege.edu/pubs/3721.pdf>. (Accessed 11.09.2020)
- Buhari Gulmez, D. (2020) The resilience of the US–Turkey alliance: divergent threat perceptions and worldviews. *Contemporary Politics*, 1-18.
- Cha, V.D. (2009/2010) Powerplay: Origins of the U.S. Alliance System in Asia, *International Security*, 34 (3), 158-196.
- Cook, S. (2018) "Trump is the first president to get right", Available at <https://foreignpolicy.com/2018/08/13/trump-is-the-first-president-to-get-turkey-right/>. (Accessed 11.09.2019)
- Çopur, H. (2019) Türk-Amerikan İlişkileri 2019'da dalgalı seyrini sürdürdü, Available at <https://www.aa.com.tr/tr/dunya/turk-amerikan-iliskileri-2019da-dalgali-seyrini-surdurdu/1688398> (Accessed 07.10.2020)
- Dalay, G. (2021) US-Turkey relations will remain crisis-ridden for a long time to come, 29.01.2021, Available at <https://www.brookings.edu/blog/order-from-chaos/2021/01/29/us-turkey-relations-will-remain-crisis-ridden-for-a-long-time-to-come/> (Accessed 02.02.2021)
- Doğan, Z. (2019) Türkiye-ABD İlişkilerinin Temel Dinamikleri Ve Stratejik İttifak Boyutu, *Kahramanmaraş Sütçü İmam Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 9 (2), 133-156.
- Düzgüt, S., Balta, E., O'donohue, A. (2020) "Turkey, Russia, And The West: Reassessing Persistent Volatility, Asymmetric Interdependence, And The Syria Conflict, Istanbul Policy Center.
- "The unhappy marriage Turkey and NATO are growing apart", 3 February 2018, <https://www.economist.com/europe/2018/02/01/turkey-and-nato-are-growing-apart>. (Accessed 02.12.2021)
- Eralp, A. (1994) Turkey and European Identity: Forging New Identities Along Old Lines, Toward a European Nation?, in Max Haller, Rudolf Rihter( Eds), NewYork: Routledge.
- Gözen, R. (2017) Türkiye ve ABD: Çıkarlar-Değerler Çatışmasında Asimetrik İttifak, *TYB Akademi Dil Edebiyat ve Sosyal Bilimler Dergisi*, 7, 9-34.
- Güvenç, S. (2015) NATO'nun Evrimi ve Türkiye'nin Transatlantik Güvenliğe Katkıları, *Uluslararası İlişkiler*, 12 (45), 101- 119.
- Güvenç, S. and Özel, S. (2012) NATO and Turkey in the post-Cold War world: between abandonment and entrapment, *Southeast European and Black Sea Studies*, 12(4), 533-553.
- Kasapoğlu, C. (2017) "Türkiye'nin S400 İkilemi", *EDAM Dış Politika ve Güvenlik*, 2017/5., Available at <http://edam.org.tr/wp-content/uploads/2017/10/s400tr.pdf> (Accessed 22.10.2020)

- Kasapoğlu, C. and Ülgen, S. (2018) "Türkiye NATO İttifakı'ndan Uzaklaşıyor mu? F-35 Teslimatları ile S400 Alımının Değerlendirilmesi", EDAM, Dış Politika ve Güvenlik, 7.
- Lake, David A. 1999. *Entangling Relations: American Foreign Policy in Its Century*. Princeton, NJ: Princeton University Press.
- Larrabee, S. (2010) *Troubled Partnership U.S.-Turkish Relations in an Era of Global Geopolitical Change*, Project Air Force, Available at [https://www.rand.org/content/dam/rand/pubs/monographs/2009/RAND\\_MG899.pdf](https://www.rand.org/content/dam/rand/pubs/monographs/2009/RAND_MG899.pdf). (Accessed 11.10.2020)
- Lefebvre, M. (2005) *Amerikan Dış Politikası*, (çev) İsmail Yerguz, İstanbul: İletişim Yayınları.
- Merriam-Webster. <https://www.merriam-webster.com/dictionary/alliance?src=search-dict-box> (Accessed 11.11.2021)
- Morrow, James D. (1991) "Alliance and Asymmetry: An Alternative to the Capability Aggregation Model of Alliances," *American Journal of Political Science* 35 (4).
- Oğuzlu, T. 2(011) "Turkey and the west: The rise of Turkey-centric westernism", *International Journal*, 66 (4).
- Özel, S. (2019) *At the End of the Day, Where Will Turkey Stand?*, Instituto Affari Internazionali.
- Özel, S. and Morillas, P., Lindgaard, J. (2017) *Evolution of the EU's and Turkey's Security Interests, Threat Perceptions and Discourse*, FEUTURE Online Paper, No:3, Available at [https://www.feuture.uni-koeln.de/sites/feuture/pdf/D4.2\\_final.pdf](https://www.feuture.uni-koeln.de/sites/feuture/pdf/D4.2_final.pdf) (Accessed 29.10.2020)
- Parlar Dal, E. and Oğuz Gök, G. (2014) *Locating Turkey as a 'rising power' in the changing international order: An introduction*. *Perceptions: Journal of International Affairs*, 19(4) pp.1-19.
- Sarı Ertem, H., and Karadeniz, F. (2019) "Lost In Translation: A System-Level Analysis of the Turkish-U.S. Alliance under the Obama and Trump Administrations", *Perceptions: Journal of International Affairs*, 24 (1), pp 7-38.
- Sander, O. (2006) *Türkiye'nin Dış Politikası*, 3. Baskı, (Ankara: İmge Kitabevi)
- Snyder, G.H. (2007) *Alliance Politics*, Cornell University Press, Ithaca, NY.
- Smith, A. (1998) "Extended Deterrence and Alliance Formation." *International Interactions* 24(4), 315-343.
- Reynolds, M. (2018) *The End of a "Strategic" Relationship? How American-Turkish Relations Hit Historic Lows*, Available at <https://www.fpri.org/article/2018/09/the-end-of-a-strategic-relationship-how-american-turkish-relations-hit-historic-lows/> (Accessed 29.12.2020)
- Walt, S. (1990) *The Origins of Alliances*, Cornell University Press.
- Tocci, N. (2011) *Turkey's European Future. Behind the Scenes of America's Influence on EU-Turkey Relations*, (New York/London: New York University Press)
- Turan, İ. (2018) "Avoiding Further Deterioration in Turkish-U.S. Relations: Less Emotion, More Wisdom," *The German Marshall Fund of the United States*, No. 009, Available at <http://www.gmfus.org/file/26147/download> (Accessed 20.11.2020)

- Turkey: Background and US Relations, 2018, Congress Research Services, Available at <https://crsreports.congress.gov/product/pdf/R/R41368/66>. (Accessed 11. 12. .2020)
- The unhappy marriage, Turkey and NATO are growing apart, 2018, <https://www.economist.com/europe/2018/02/01/turkey-and-nato-are-growing-apart>. (Accessed 20.12.2020)
- “Türkiye Fransa’da Eurosam Konsorsiyumu ile füze savunma sistemi anlaşması imzaladı, <https://www.bbc.com/turkce/haberler-dunya-42579445>, 5.01. 2018 (Accessed 09.11.2020)
- Erdoğan, Macron’dan Türkiye’nin Avrupa hava savunma sistemi SAMP-T’ın üretimine dahil edilmesini istedi, <https://www.bbc.com/turkce/haberler-dunya-54294480>, 25.09.2020. (Accessed 18.12.2020)
- Yesilyurt, N. (2020) 2011 Sonrasında Türkiye-Mısır İlişkilerinde Yaşanan Ani Yükseliş ve Sert Düşüşü Anlamak. SİYASAL: Journal of Political Sciences, 29(2), 337-365. <http://doi.org/10.26650/siyasal.2020.29.2.0083>
- Yılmaz, N. (2011) “U.S.-Turkey Relations: Partnership as an ‘Empty Signifier’”, Insight Turkey, 13 (1), 19-25, <https://www.insightturkey.com/file/662/us-turkey-relations-model-partnership-as-an-empty-signifier-winter-2011-vol13-no1> (Accessed 11 Aralık 2021)