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The Concept of Juristocracy on Trial: Reality or Fiction?

Norbert KIS[1]

This article aims to investigate the controversial concept of Juristocracy that has been widely analysed recently. This theory claims that lobbyists representing a liberal ideology have formed an oligarchy of lawyers in EU institutions. These juristocratic networks seek to limit the sovereignty of post-liberal, legitimate national governments. The concept extends to other supranational institutions as well as NGOs and academic networks. This study discusses the political ambition of lawyers of EU institutions and their existence as political protagonists i.e. Juristocracy. However, the theory of Juristocracy addresses some historical phenomena. The EU's bureaucracy has become a "power institution" and tends to compete with national governments. In this socio-evolutionary struggle, both legal and political theories can easily become "power theories". The concept of Juristocracy reflects the weakening global influence of neoliberal values as well as the changing role of post-WWII supranational institutions. In this respect, juristocratic networking can be seen as a historical necessity as much as it has to do with the conflict of supranational and national governance, in particular within the EU. The legitimacy and public trust of supranational institutions is more and more challenged, thus the study concludes the need for a new, win–win deal between national governments and supranational institutions. Otherwise, in the long-term, nation states will only survive if relying on historical and socio-psychological foundations.

Keywords: *Juristocracy, liberalism, European Union, supranational, nation state, illiberal, political power*

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Introduction – The concept of Juristocracy

Recently, there has been a massive amount of literature devoted to the concept of Juristocracy.[2] The latest monograph about the juristocratic operation of the European Union was published in 2018.[3] The author Béla Pokol, judge of the Hungarian Constitutional Court, invented a new approach to European Juristocracy. The essence of it is that lobbyists with a fundamentally liberal worldview form a certain constitutional oligarchy or network of lawyers within EU institutions. Their operational fields include the European Court of Justice (ECJ), the European Court of Human Rights (ECHR), the EU Commission, constitutional courts of European countries, and moreover the international courts, universities and NGOs. Juristocracy enforces its own liberal-oriented political values through jurisprudence, common law, the attitude of legal defence and the created legal language and legal doctrines. With the loss of space of liberal politics, these juristocratic networks seek to limit the leeway of post-liberal, legitimate national governments. Juristocracy tends to limit democratic forces having electoral legitimacy and democracy itself. The EU has become a Juristocracy since the ECJ cannot even be limited by the Member States' common policy. However, the ECJ represents the limitation of the Member States and strengthens EU integration. The oligarchy of lawyers within EU institutions represents a policy of a "federal Europe" in a targeted manner. The examined phenomenon relates to the enforcement of the interests of the elite advocating globalisation; it is about the lawyers' oligarchy operating as part of the global network or a so-called global constitutional oligarchy. Pokol's concept argues for the complexity and coherence of the above phenomena, and illustrates how Juristocracy works, what its motives, aims and ambitions are.

The concept questions the bona fide approaches related to the European Union epistemic communities.[4] The European Court of Human Rights (ECHR) deals with 40,000–60,000 submissions a year, the European Court of Justice (ECJ) manages between 1,600 and 1,700 cases related to 27 Member States in 24 languages. The EU Commission is the administrative enforcement mechanism of a union of a population of 500 million. Serious professional legal and clerical staff have been managing the European caseload for decades with refined mechanisms and precedents. The question arises whether the above-mentioned forums, which have become the drivers of European integration, have been distorted. Have they gone down the path of exercising political power as institutions

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2 Benedict Kingsbury, 'Foreword: Is the Proliferation of International Courts and Tribunals a Systemic Problem?', *N. Y. U. Journal of International Law and Politics* 31 (1999); Mathilde Cohen, 'Judges or Hostages? Sitting at the Court of Justice of the European Union and the European Court of Human Rights', in *EU Law Stories. Contextual and Critical Histories of European Jurisprudence*, ed. by Fernanda Nicola and Bill Davies (Washington, D.C.: Cambridge University Press, 2017), 58–80; Ran Hirschl, *Towards Juristocracy. The Origins and Consequences of the New Constitutionalism* (Boston: Harvard University Press, 2004); Alexander Somek, 'Administration without Sovereignty', in *The Twilight of Constitutionalism?*, ed. by Petra Dobner and Martin Loughlin (Oxford: Oxford University Press, 2010), 286; Ruti Teitel and Robert Howse, 'Cross-Judging: Tribunalization in a Fragmented but Interconnected Global Order', *N. Y. U. Journal of International Law and Politics* 41 (2009), 292–294.

3 Béla Pokol, *Európai jurisztokrácia* [European Juristocracy] (Budapest: Dialóg Campus Kiadó, 2019).

4 Anthony R Zito, 'Epistemic Communities, European Union Governance and the Public Voice', *Science and Public Policy* 28, no 6 (2001), 465–476.

committed to the application of law? If so, what factors and objectives have transformed these institutions into lawyer oligarchies and Juristocracy with ambitions for political power?

One of the keywords of the possible answers is "political power". Perhaps it is necessary that, over time, the above-mentioned European institutions have become "power institutions" and the apparatuses a "power arm" driven by their own survivalist "social instinct". According to the theory of cultural evolution,[5] there is a competition of survival between the social and political groups as well, whether they are nation state or international organisations. At this point, the tragic conflict between Juristocracy and the nations fearing for their sovereignty seems inevitable. By analysing the phenomenon, both legal theory and political theory can easily become a "military theory" or "power theory". In this civil, military theory, every institution and group is actually politicised and does so with ambitions of power. The institutions and their members become power factors and part of the power rivalry. In their assessment, the only thing that remains is the issue of martial belonging and of open or hidden political, i.e. power goals. Legal values are "devalued" to underlying political interests, and legal reasoning becomes political. On the one side in the fight there are nation state forces legitimised by the will of the electorate. On the opposite side there are the "institutions of power" which are not legitimised by the votes of the people. National sovereignty is opposed to the legal apparatus and bureaucracy aiming at the control and limitation thereof. However, the fight is not of legal but political nature. This is where the theory of Juristocracy begins, and which defines the boundaries of a power-sharing conflict between the EU and the nation states.

The concept of Juristocracy is important in understanding the driving forces behind the ongoing changes in this historical and political era of Europe. The ideology of liberal politics is declining, the main ideology of the new era is still immature, and its name is uncertain (e.g. post-liberal, illiberal, postmodern, Christian). One thing is clear: we are entering a post-liberal era. It is also apparent that a multipolar world order is emerging. The global influence of U.S., neoliberal values and interests is also weakening. The contrast between the ideas of the vanishing and the new era is becoming sharper. The concept of Juristocracy reveals the axioms of this new historical ideology. However, the revelative power of the views on Juristocracy mainly lies in making the power struggle visible, i.e. the ambition of institutional groups, networks and power elites that they fight against nation states and their governments. It is not just a matter of debate, disagreements and different ideologies. It is a hard fight, a political "war" in Europe. According to the laws of cultural evolution, the "natural" character of the power struggle between groups has been evolving. It explains why the institutions and apparatuses presented do not always do what they are supposed to do, that is, to enforce and apply the law, but ultimately, they follow their evolutionary nature: they want to attain more (political) power and dominance.

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[5] Robert Boyd and Peter J Richerson, *Culture and the Evolutionary Process* (Chicago: University of Chicago Press, 1985); Vilmos Csányi, *Az evolúció általános elmélete* [The General Theory of Evolution] (Budapest: Akadémiai Kiadó, 1979).

Challenges of the theory of Juristocracy

The phenomenon of European Juristocracy itself, is a theory. In case of a theory, it is not necessarily important to examine the justification or refutation of the existence of the phenomenon and of the assertions made. Of course, a theory of scientific value requires systematic verification and justification. However, a theory can exist independent thereof. The ontology of the theory, that is, the cause and meaning of its existence, should be a matter of examination, especially if it appears to be necessary in the post-liberal ideology or even an essential component thereof. A theory provides a new framework for the organisation of thoughts, through which the world and phenomena can gain (new) meaning. The theory, therefore, should not be examined along "true–untrue" or "real–unreal" paradigms, but rather provide a new narrative for facts. The theory is not the mirror of objective reality. European Juristocracy as a theory is an intersubjective reality.[6] The thoughts of the community accepting the axioms of the theory make it a reality, that is, an intersubjective reality. Those who challenge the theory think of another intersubjective reality that does not see Juristocracy behind the same facts. European Juristocracy as a theory is an element of an increasing intersubjective reality. It exists, it is real, so the big question is why it has been created. Is there a quality of existence or is it a historical necessity? As it may be a historical necessity, is there a demand that the theory should not exist?

The theory of Juristocracy claims that values and progression evolved so far to become a phenomenon that binds nation states and limits democracy. For decades, the international and European judiciary, the harmonisation of European law and human rights protection, have been the symbols of political progression. The commonality of values and interests shared by the nations that upheld the belief in the impartiality of these institutions seems to have become weakened. Impartiality means that these institutions do not politicise, but enforce the law. This is why governments and nations have accepted international and European "judicial supervision" for decades. At this point, the historical conflict model of "above" and "below" is also outlined. The people, democracy and the nation state turn against the institutional authorities that have been raised "above" and grown beyond them. All this reinforces the notion that the interpretation of the institutions and values of politics and law must be considered in the context of the given historical period. This also requires a certain historical timeframe, so changes in the present (current decades) cannot be accurately diagnosed yet. The world entered the 21st century with political institutions based on interests and values that had been created by the traumas of World War I and World War II, and the great powers' deals reacting thereto. The essence of this was to restrain national politics and governments, otherwise they might become a "powder barrel". There was a need for international institutions to have control over nation states that are basically entrusted with law application. This legitimised the institutions of the UN, international law, international courts, the ECHR, the European Community and later the EU, the EU Commission and the ECJ to date. The Atlantic global political interests of the U.S. were also built on these institutions during the Cold War decades and after 1990. In the 1950s, an important motive for European integration was the economic revitalisation of Europe

[6] Yuval N Harari, *Homo Deus* (Harper Collins, 2018).

and the strengthening of industrial and commercial relations as well, but ultimately these were rather tools for avoiding another war. However, in the first decade of the 21st century, the historical motives of the international supranational institutions and those represented by the EU began to weaken. Why? We can identify four coefficients:

1. An important socio-psychological factor is that the nightmare of the two World Wars has faded away due to the passage of time. The half-a-century thesis that national governments were war risks and must be controlled and restrained has been undermined. The wars of the 1990s in the Balkans and the interventions of the Russian War in Ukraine (2014) have also failed to provide new legitimacy to the supranational control system of international and European law and institutions.
2. The U.S. can no longer function as a political global power. A multipolar order of power is emerging. The half-a-century rule of international institutions is disintegrating.
3. The "pyramid scheme" of the global financial system collapsed in 2008. Although the fraudulent system was built in Wall Street, the institutions with global competence have also lost trust and confidence. The financial collapse also proved the unsustainability of the weakened liberal "governance" systems.
4. The EU remained paralysed even during the financial crisis of 2008 and the later wave of ongoing mass migration. European integration has come to a halt when the British left the EU.

To sum up, eight decades after the two World Wars, the war risk factor of nation states is no longer able to provide enough legitimacy for either international or EU institutions. Local/national sovereignty provides the people with a more secure grip on the present and future problems than supranational institutions built on the fears of the past. The thesis of "for fear of nations" worked until nation states faced the experience of "we can only count on ourselves". The global financial crisis (2008) and the intensification of mass migration have awakened the capacity of nations and their governments since they feel the security of their everyday life at risk. An active national policy requires room for manoeuvre as it is answerable to the voters for preventing and handling the problems that jeopardise the future. Voters do not live in the past; they want a solution to the real problems of the present and hold national governments accountable for it. The national political reality is struggling in the present and future, but the perception of reality of international and EU law is based on the ideas of resolving past historical fears. At these points, conflict between reality-responsive politics and the supranational legal and institutional world based on fears of the past began. However, the conflict is still at an early stage and international and EU institutions continue to "keep the nation states in the trap of the past".

The traps of history

International and EU institutions have become a dense legal and institutional network over the last half a century. This has been created both by the interests of the victorious states of World War II and the "fear complex" of a new global war. Within the dense web woven around and above the nation states, several power centres and structures have been created.

Apolitical professionalism has created bureaucracies that have become a new supranational elite. The concept of Juristocracy refers to this bureaucracy within EU institutions, which appears as a factor of power, i.e. a kind of oligarchy. In the theory of Juristocracy, the picture of a stable and professional power structure emerges in the apparatus which applies and enforces the law. It is a more stable and efficient power structure than the seeking and fluctuation of political compromise of member state governments, i.e. the EU Council. This new power structure is ex officio operated and maintained by the Juristocracy of the EU's legal institutions. It regards this as a vocational interest and even a value. To the extent EU member state policy is weakened, its bureaucratic-legal power structure is strengthened. Thus, a power conflict between the institutional power structure of the Member States and the EU has been increasing. The bureaucratic power structure, by its very nature, is not democratic, as opposed to the weakening but democratically legitimised national policies. At this point, the concept of Juristocracy argues for the tyranny (oligarchy) of an elite and also its effectiveness over the Member States. The "power capacity" of the national politics operating on a democratic basis is fragile since the voters' confidence has to be gained every few years. It seems that political power can be accumulated more effectively by uncontrolled and non-transparent "bureaucratic networks" than national governments.

Paradoxically, the historical trap has been set by nation states, themselves. They have established supranational institutions that have become power factors, speaking legal language while fighting a political battle with the Member States. International and EU institutions, like all cultural entities, over time manifest their own ambitions of power, striving to absolutise their own set of values through legal principles or case law. Ordinary courts, constitutional courts, universities, international organisations, trade unions, academies and human rights institutions are all important political and social institutions in a democracy. However, they still operate with a (socio-evolutionary) code of power, that is, seeking influence and power for their own "cultural survival". Projecting this approach to the elites of groups, bureaucracy, the legal apparatuses, judicial elites and a variety of institutional elites, exemplifies the fact that they are in a power-evolution struggle with other institutions, even with the governments of nation states. The existence of European Juristocracy is not a revelation in this respect, at least not in an socio-evolutionist approach.

It should be noted that in the meantime, nation states are also struggling with their own crisis of democracy, which also have factors beyond the issues discussed here.[7] The politics and governments of nation states are struggling in this tightly woven institutional and power network, and are caught in "the traps of history". The opportunities for sovereign and legitimate national governments to resist and become free are limited. However, the European integration "project" seems to disintegrate and fulfil Osvald Spengler's prediction about Western civilisation.[8] European integration as a political process coming to a halt is an important factor in the coercion of changing the era and of new political theories. There have always been crises in the history of the EU, but today there is more to it than that: the process of deepening and expanding integration has come to a standstill. Not only does the federalist movement seem to fail, but the purpose and

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7 Norbert Kis, 'Anti-Politics, Populism and Political Psychology', *Comparative Politics* 9, no 2 (2018), 83–93.

8 Osvald Spengler, *The Decline of the West* (Alfred A Knopf, 2nd ptg edition, 1926).

meaning of European integration have become questionable. Some believe that the EJC and the federalist Juristocracy have convinced Europe that the EU code of operation is the "ever closer union", i.e. the need for the dynamics of increasing integration and the strengthening of the supranational level.[9] The ECJ cases of Van Gend en Loos and Costa v. Enel (1962 and 1964) broke with the nature of international law regarding Community law, declaring its direct effect and primacy over the legal systems of the Member States. If integration slows down or stops, there will be an operational crisis and, in the long run, the EU institutional system will become pointless and unsustainable. By contrast, the original purpose of establishing the EU (EC) was to build a community necessary for economic cooperation, and now we should return to this.

The EU Commission and its allied ECJ pursue federalist policies, whereas "policy making" at the strategic level is not their duty. However, it would be contrary to their own bureaucratic nature and the power "instinct" of the institutions if they did not operate "expansively". The real question is whether the Member States can give the EU a new meaningful common purpose, that is, a different "code" of operation than the one created and maintained by the "myths" of federal integration provided by ECJ and EU Juristocracy. Until such a political decision is taken, it would be an illusion to expect the EU institutions to operate in ways that are not federalist and do not serve the policy making that deepens integration. A new political direction must be set at the level of the Council of heads of state or government of the Member States and the Treaty.

To sum up, the institutional system of EU integration has moved away from the democratic central point as an "expanding universe of power". This central point should be the basis for all politics: popular will. In the long term, the possibility of democratic control determines the viability of a political institution, in the short term, however, not necessarily. This is why the criticised EU institutions were able to extend beyond popular will. This might have been a necessary "evolutionary" process, but it is still the basic element of the dramatic conflict between the nation states and EU institutions. The theory of Juristocracy also argues power ambitions for the survival of the weakening liberal political order in the operation of these institutions. By identifying the interests of political groups, we are once again in the middle of a power struggle.

Conclusions

One of the motives of Juristocracy theories is that the power struggle must be fought according to the nature and means of politics. Juristocracy fights a political power struggle with legal means. The concept of Juristocracy claims "unfairness" by putting legal arguments which hide purely political reasons. The methods and tools of Juristocracy seem to be the "normal operation" of institutions and their apparatuses under examination. Courts decide disputes, juristocratic academics educate and publish, and NGOs engage in human rights protection. The concept of Juristocracy qualifies these practices that transform political goals into abusive legal arguments. All this can be logical, because if

[9] János Gyurgyák, *Európa alkonya* [The Twilight of Europe] (Budapest: Osiris, 2018).

an opponent in a battle has swords and pistols lawfully, he will use them in the battle. In the meantime, he will disguise himself and use other stratagems. This is the case with the toolkit of Juristocracy, should it be court judgments, case law, preliminary rulings, a "pilot judgment" proceeding, legal education and publications or human right submissions. The "populist card" is also part of the struggle. The transparency of supranational institutions is less accountable than governments. The explanation and effect of this is the lack of democratic electorate control. Social confidence in the institution of the EU shows a declining tendency according to data of Standard Eurobarometer 2015–2018. These institutions (EC, ECJ, ECHR, NGOs) do not receive social confirmation as opposed to the governments operating with electoral legitimacy. These institutions are irritated by the democratic empowerment of the governments and by their reference to popular will. The accusation of the governments' populism easily emerges, and the governments are not only labelled by liberal political groups and media but are also retaliated against as a legal investigation in a legal veil. An example of this is the initiation of the EU Commission's "Rule of Law Framework". The main weapon of Juristocracy is the "legal rhetoric" of political debates. The method is explained in the concept of the common language of European Constitutional Law. According to this, both state and political doctrine should be translated into legal dogmatics, i.e. constitutional law.[10] Judicial or case law applies this tool at the highest level. However, the ECJ and ECHR judges are often unable to become independent because they are "hostages" (Béla Pokol) to the hierarchical legal apparatus that dominates the judgments through the techniques of case law restrictions and the applied legal language. Pokol also considers the French language accepted as the only working language of the ECJ as a "trap", which narrows the Member States' actual room for manoeuvre in the language of legal disputes.

The crisis of the legitimacy of institutional control over elected political power is a historical archetype. The modern form of the archetype is based on Rousseau's theory of popular sovereignty. International judicial and supranational institutions have an *ab ovo* legitimacy deficit. However, this can be temporarily replaced by a system of values and trust provided to them by nation states. However, if the institutions show power-political attributes, this fragile "legitimacy" may cease to exist. This is where the theory of Juristocracy evolves, which basically criticises the control of certain legal institutions, institutions of law – especially judicial power over the government (executive) power, its extent and quality. The theory, however, must not go beyond the classical political-ethical principle: the exercise of power must be forced by the dismantling of sovereignty and the concentration of power, so that it is truly subordinated to the judgment on its own right. Political governance must be controlled by checks and balances of power. It is risky to question the authority of the legal principles created by the development of the idea of democracy and the rule of law and their interpretation and enforcement by independent judicial forums. This is a historical risk of the debate between the emerging post-liberal ideology and the theory of Juristocracy, which may be another historical trap.

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[10] András Jakab, *Az európai alkotmányjog nyelve* [The Language of the European Constitutional Law] (Budapest: NKE Szolgáltató Kft., 2016).

One of the hypotheses of this paper is that the theory of Juristocracy is a historical necessity. This theory necessarily emerges in post-liberal ideology, as generally the problem of the power of the supranational judicial forums cannot be avoided. The basic motif of the post-liberal era is the historical force of strengthening the sovereignty and capacity of state governance.[11] This implies conflicts, as a significant part of the power has been taken by international and European judicial forums over the past half-a-century. As an additional risk, it is important to realise that the functioning of international and European trade is also jeopardised by the challenge and dismantling of the authority of supranational institutions. Yet the struggle for sovereignty is moving in that direction. The expansion of nation states' room for manoeuvre will be a long, perhaps decades-long process. However, we should not just think of a black-or-white, win–lose outcome. A new deal is needed on the relations between states and supranational institutions, within the EU, too. A new paradigm should be elaborated that envisages a horizontal order for a closer community of states rather than the hierarchical order of the (neo) liberal era. History will reshape the hierarchical order of "above" (international and European institutions) and of "below" (nations). This will also take time on a historical scale, as the path to power rearrangement is being lead on a political battlefield. The power structures that are able to level other power groups gain historical opportunity.[12] Nation states have historical and socio-psychological foundations, so they have the right to their own historical survival. Not only nation state sovereignty, but our existence as a nation state will be at stake.

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[11] István Stumpf, *Erős állam, alkotmányos korlátok* [Strong State, Constitutional Constraints] (Budapest: Századvég, 2014).

[12] Norbert Kis, 'The power of virtuality as a challenge for governments: A post-state dystopia', in *Central and Eastern European eDem and eGov,* ed. by András Nemeslaki, Alexander Prosser, Dona Scola and Tamás Szádeczky (Wien: Austrian Computer Society, 2019), 107–114.

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Recent Trends in Transit Migration Routes Through Turkey to Europe

Erhan AYGÜN[1]

Due to its geographical proximity to Western countries, Turkey is becoming one of the critical points of a complex migration system that includes asylum seekers, refugees, regular, irregular and transit migrants. For this reason, Turkey, regarded as a "transition country", is a very important station on the way to European destinations. With this aspect, Turkey has become a key country in terms of the EU's border security, and this feature has become the focal point of EU–Turkey relations.

Despite the importance and insufficient opportunities for irregular migration to the EU, Turkey's struggle with transit migration will be discussed in this study. Furthermore, the routes used by refugees to reach Europe through Turkey, as well as the statistics related with these routes, will be examined.

Keywords: *transit migration, Turkey, the EU, migration routes, immigrants*

Introduction

Due to globalisation, increasing inequalities in living standards and acceleration of communication, the fact that different parts of the world become more aware of each other has turned the direction of millions of African and Asian people in search of a new life to the north and west. The target shown in both directions is Europe. The rich European countries, which are the target of long-distance migration movements originating from the "problematic" regions of the world, try to protect their borders with the new regulations they put into effect for the "unwanted" who want to enter.[2] Hence, those who wish to migrate turn to illegal ways more frequently in order to reach the destination countries that have become more difficult to "reach". Consequently, irregular and transit migration activities are the most common routes used to reach Europe today.

Transit migration is generally considered a subcategory of irregular migration and does not have a universally accepted definition. According to the United Nations, transit migration is 'the type of migration that immigrants use temporarily to cross

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[2] Myron Weiner, 'Ethics, National Sovereignty and the Control of Immigration', *International Migration Review* 30, no 1 (1996).

their country of transition to the destination country'.[3] On the other hand, a transit country is 'the country that is geographically located between the source and destination countries and has to manage the temporary population that is likely to turn into a legal or illegal resident population at any time'.[4] The International Organization for Migration defines the transit country as 'the country through which legal or illegal immigration flows pass'.[5]

The term transit migration refers to certain forms of migration that are apparently temporary. This includes migrants who move from one country to another because they had their actual purpose or because changing circumstances, increasing pressures or new objectives dictate so. More generally, the term also refers to "long journeys full of difficulties". Usually, these journeys are longer in distance and time, constantly changing direction, and can sometimes be dangerous. Transit migration is used as an "umbrella term". It can cover many different categories, such as refugees and labour migrants. But it is often used for mixed migration flows such as regular and/or irregular migration and temporary migration. The concept of transit migration is a politicised concept that is used for unwanted immigration to developed EU countries, and transit countries are also held responsible for this unwanted immigration.[6]

Discourses on transit migration are exaggerated, they have a warning purpose pointing to waves of migrants heading north and west, the masses and millions of immigrants. With the impact of the September 11 events, this concept has been used in association with terrorism since 2001 and is considered a threat to all kinds of security of target countries, especially border security.[7]

Countries of origin located around Turkey's hinterland

Turkey is highly vulnerable to irregular migration movements stemming from unstable areas. There are two main reasons for this: its geographical location in relation to the Asian, European and African continents, as well as its natural bridge feature between the politically and economically underdeveloped some Middle East, Caucasus and Central Asian states and the wealthy European countries. Furthermore, Turkey's positive separation from neighbouring countries as a result of its recent economic development has added the adjective "target country" to the "transit country". Along with these, Turkey has been the target of mass migration flows to Anatolia as a result of the turmoil in the Middle East, the Caucasus and the Western Balkans, where it has historical, religious and cultural ties. Thus, Turkey has transitioned from a "migrant country" to an "immigrant country", a process that began with the export of labour

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3 UNECE, *Defining and Measuring Circular Migration* (United Nations Economic Commission for Europe, 2016).

4 Marcel Bazin and Stéphane de Tapia, *Türkiye coğrafyası: la Turquie : géographie d'une puissance émergente* (İstanbul: Iletisim, 2015).

5 IOM, *Glossary on Migration*, 2019.

6 Franck Düvell, 'Clandestine Migration in Europe', *Social Science Information* 47, no 4 (2008), 479–497.

7 Ibid. 497.

to Western Europe in the 1960s. The fact that the problems in Turkey's unstable hinterland continue to worsen indicates that this standard will be maintained in the near future.

Immigrants from countries such as Syria, Iraq, Afghanistan, Bangladesh, Pakistan, Palestine, Ethiopia, Sudan and Somalia, which are sources of international migration, pass through Turkey in some way. While evaluating Turkey as a target country, a significant portion of them see our country as a transit country. For the immigrants in the second group, Turkey is a transit country to reach the destination country.

According to UN data, the fact that refugees in Turkey, Jordan, Palestine, Lebanon and Pakistan, which are the countries hosting the highest number of refugees in the world, correspond to a high rate in the population of the countries they live in, increases the likelihood of them turning to third countries because it causes problems in meeting their needs. Therefore, the priority target for refugees clustered in these countries is developed European countries. For this reason, Turkey draws attention with its high refugee population as well as being on the transit route of migration movements towards Europe.

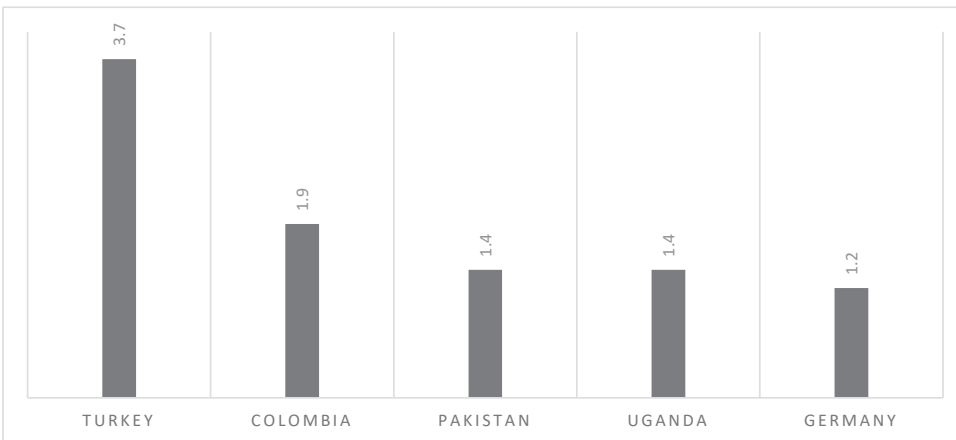


Figure 1: The first 5 countries with the highest number of refugees (in million) (as of end-2020)

Source: Compiled by the author based on UNHCR 2021 data.

According to the data showed above, the most important refugee hosts worldwide are Turkey, Colombia, Pakistan, Uganda and Germany. The fact that refugees correspond to a high proportion of the population of these countries they live in increases the possibility of turning to third countries as it causes problems in meeting their needs. The priority targets for the refugees concentrated in these countries are the developed European countries. For this reason, Turkey draws attention with its high refugee population as well as being on the transit route of migration movements towards Europe.

Since the 1990s, Turkey has been in a critical position for immigrants who have fled from conflicts and wars and headed to Europe with the hope of a comfortable life to achieve their goals. As it is shown in the map below, immigrants departing from Central and Southeast Asian countries such as Afghanistan, Pakistan, Bangladesh, Middle East countries such as Syria, Iraq and Palestine, as well as African countries such as South Sudan, Somalia and Eritrea, consider Turkey a transit country on their way to Europe. 57% of the world's refugees originate from South Sudan, Afghanistan and Syria and considering the nationalities of illegal immigrants caught at EU borders, Tunisia, Afghanistan, Pakistan, Albania, Algeria, Morocco, Eritrea, Somalia and Bangladesh are in the first place, illustrates the importance of Turkey in the context of transit migration.[8]

Map 1: Migration movements via Turkey (transit) towards Europe

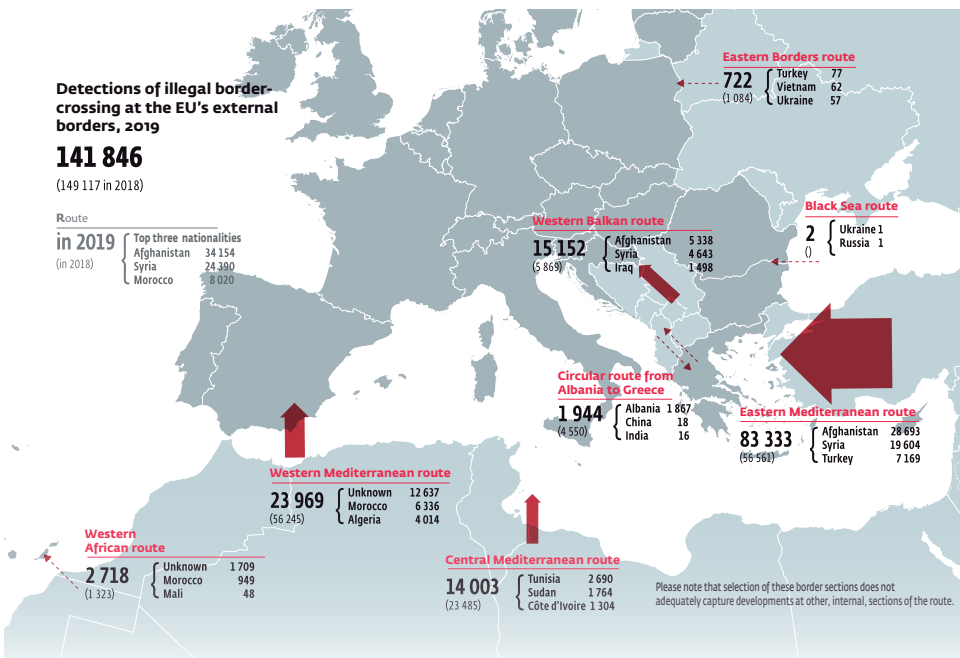
Source: Compiled by the author based on UN Data.

In addition, the fact that they will continue to cause more irregular migrants due to the continuing instability, conflict and problems in these countries is an indication that the critical position of Turkey on transit migration will not remain short-term.

[8] UNHCR, *Global Trends. Forced Displacement in 2018.*

Migration routes between Turkey and Europe: The route of the Eastern Mediterranean and Western Balkans

Geographically, the African continent and the Middle East are the EU's closest neighbours and familiar sources of irregular migration to the European continent. Almost 90% of illegal border crossings to the EU happens through the Mediterranean.[9] In order to reach Europe, immigrants prefer the West African Route, the Western Mediterranean Route, the Central Mediterranean Route, the Eastern Mediterranean Route, the Western Balkan Route, the Black Sea Route, the Eastern Border and the Greece and Albania Circular Routes. However, the Eastern Mediterranean and Western Balkan Routes are the two most important routes used by migrants to reach EU countries.



Map 2: Detections of illegal border-crossing at the EU's external borders

Source: Frontex Annual Risk Analysis 2020.

Especially the Eastern Mediterranean Route has been used as an entry route to Europe for many years. According to the map above, the number of illegal immigrants arriving in Europe in 2019 was 141,846. Considering the generality of illegal crossings, it is understood that 69% (98,485 people) took place via the Eastern Mediterranean and

[9] Jean-Dominique Giuliani, 'The Challenge of Illegal Immigration in the Mediterranean', *European Issues* no 352 (2015).

Western Balkan routes. Despite the measures taken to prevent illegal border crossings and agreements between countries, the interest of immigrants in this route continues.

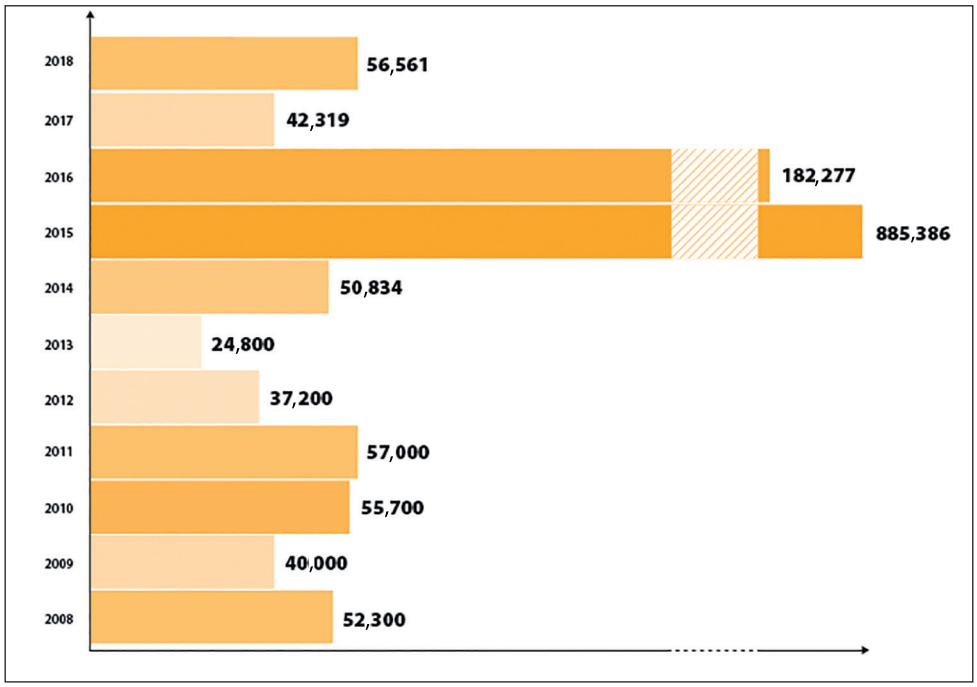


Figure 2: Illegal border crossings on the Eastern Mediterranean route in numbers

Source: Frontex, Eastern Mediterranean Route, 2019.

Between 2008 and 2018, 1,484,377 illegal immigrants crossed the Eastern Mediterranean route to reach Europe. Furthermore, in 2015 alone, 885,000 immigrants used this route. This is the largest migration wave that Europe has faced since World War II. Therefore, it is frequently emphasised that the Eastern Mediterranean Route is an important place for immigrants.

The position of Turkey on this route is also reflected in international organisation reports. Indeed, the results of the International Organization for Migration's fieldwork with illegal immigrants using the Eastern Mediterranean Route in 2017 show that it takes a year or more for immigrants to travel to the destination country. Turkey and Iran are the most frequently used countries for accommodation (transit migration bases) in this process.[10]

[10] IOM, *New UN Migration Report Shows Complex Evolution of Pathways, Cost of Eastern Mediterranean Route*, 2017.

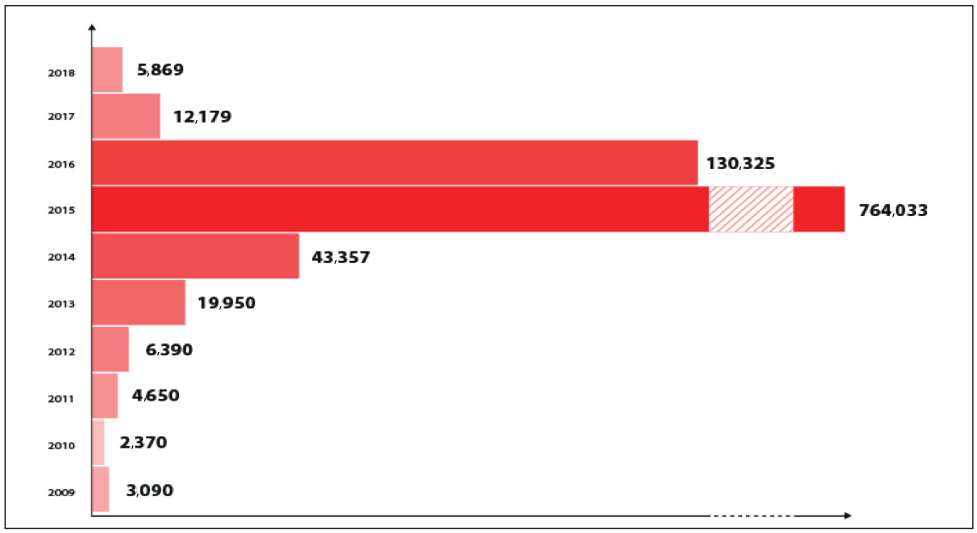


Figure 3: Illegal border crossings on the Western Balkan Route in numbers

Source: Frontex, Western Balkan Route, 2019.

The Western Balkan Route is also frequently used by immigrants to reach Europe. Turkey is the main source of this route on the land border between East and West. Immigrants using this route stay in one or more countries upon their arrival in the destination country. Especially Istanbul has the feature of being the most frequently used point as a transit base on this route.[11] This route has become the main route for refugees and immigrants crossing the Greek–North Macedonian border from Turkey to Greece and from the north to the Western Balkans in 2015, a total of 992,213 immigrants used this route between 2009–2018. Moreover, the number of immigrants using this route is 764,033 in 2015 alone.[12]

Recent developments in the routes: Decreased or increased?

As in previous years, irregular migration and asylum have continued to dominate the European migration debate in 2020. The debate was centred on whether the mobility restrictions and economic slowdown connected to Covid-19 would result in a shift in trends. As a result, the observed overall decline had no effect on the main roads in the same way. In 2020, the Eastern Mediterranean Route will be replaced by the

11 Ibid.

12 Katie Kuschminder, Talitha Dubow, Ahmet İçduygu, Aysen Üstübici, Eda Kirişçioğlu, Godfried Engbersen, and Olga Mitrovic, *Decision Making on the Balkan Route and the EU–Turkey Statement* (UNU-MERIT, 2019).

Central Mediterranean and Western Balkan Routes. The number of detections along the Eastern Mediterranean Route fell by 75.0% from 75,280 in 2019 to 18,490 in 2020.

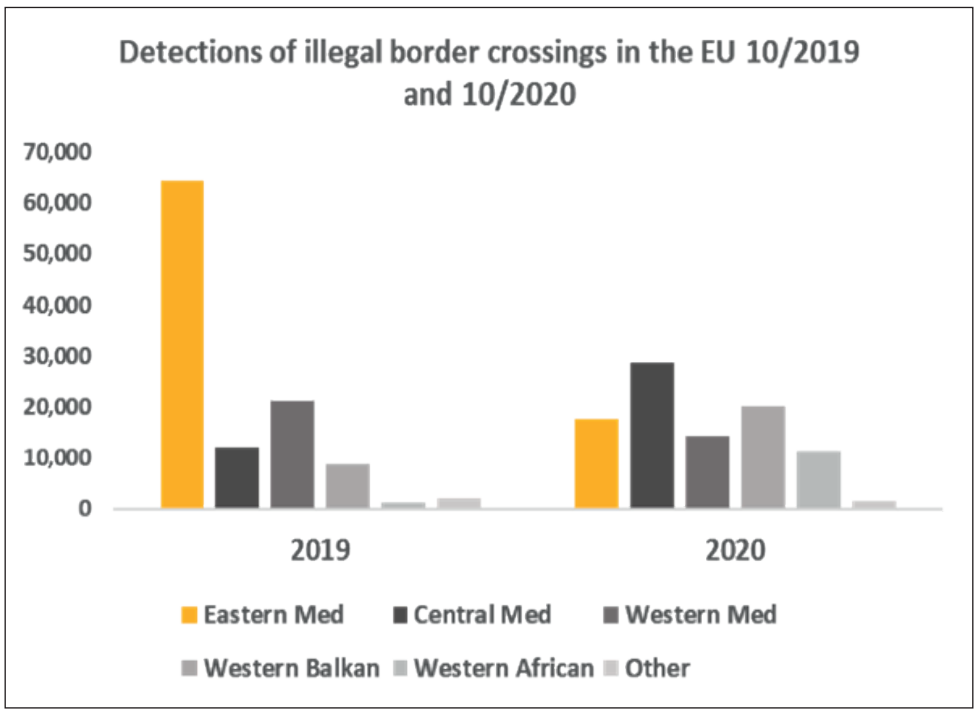


Figure 4: Detections of illegal border crossings 2019–2020

Source: Frontex Annual Risk Analysis 2021.

This shift was primarily influenced by events on the Greece–Turkey border in early 2020. For the first time since the EU–Turkey migration agreement was signed in 2016, a significant flow of refugees from Turkey began to move towards Greece. Greece reacted by closing its borders and suspending the acceptance of asylum seekers. As a result, arrivals on the Greek islands decreased significantly. According to UNHCR data, the total number of arrivals fell from around 60,000 in 2019 to around 9,300 in the first ten months of 2020. Even so, the Greek asylum and reception system is still under enormous strain. According to the UNHCR, approximately 120,000 refugees and migrants are currently residing on Greek territory.

In 2020, the Western Balkans remained a transit route for mixed flows of migrants en route to final destinations in EU countries. The region's registered migrants and refugees have increased significantly in recent years and have remained high despite Covid-19 preventative measures.

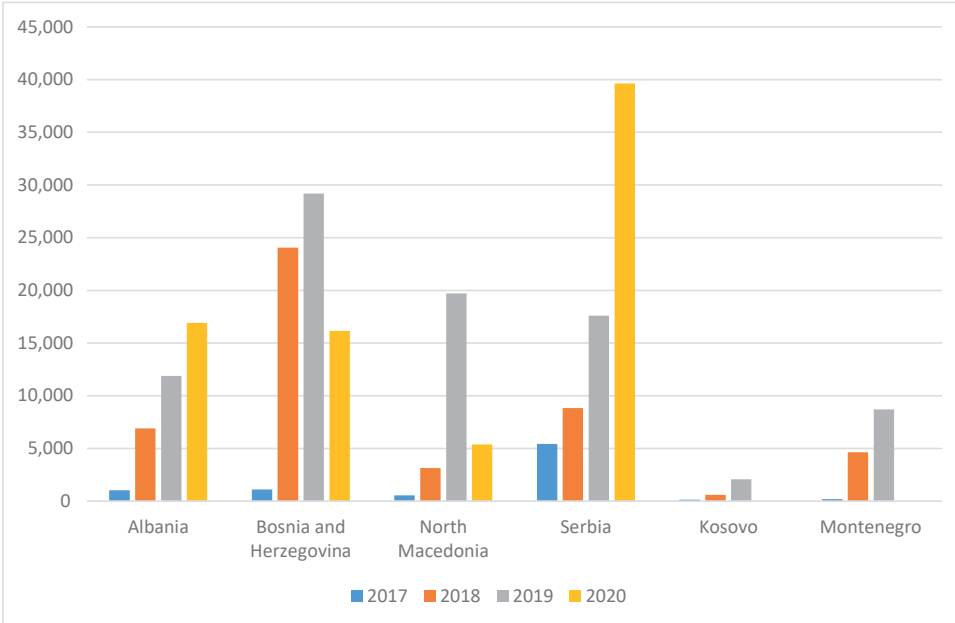


Figure 5: Registered migrant and refugee arrivals in the Western Balkans 2017–2020

Source: IOM, Flow monitoring, Europe, 2020.

Each Western Balkan country experienced a significant increase in the number of newly registered migrants and refugees, especially in 2019 compared to 2018. Even in 2020, the number of registered migrants and refugees was also quite high, with Serbia receiving approximately 40,000 new arrivals. Other countries reported a decrease in numbers compared to 2019, most likely as a result of Covid-19-related measures and changing migration routes in the Western Balkans. When the number of arrivals recorded by IOM is compared, the trend decreases in the second quarter of 2020 and then increases again in the following period.

Conclusion

Considering the routes that are heavily used through Turkey, the mobility of migrants on the Eastern Mediterranean Route continues, with an average of 165 migrants using this route per day (in 2019). The General Directorate of Migration Management's density map and the United Nations' migration map confirm the intensity and quality of this mobility, with overlapping results. Compared with other statistical data, both maps suggest that Turkey will continue to maintain its position as a transit migration base.

In case of transit migration, not having legal status limits immigrants' access to legal, economic and social opportunities makes them vulnerable to discrimination, racism and violence, and creates barriers to labour market access. During the transit migration process, they face physical and environmental risks such as disease, hunger and trauma. During the migration process, which they began healthily, they become physically weakened due to the adverse conditions they encountered, and they also face mental health issues. They are frequently refused employment, are unable to rent a home, and do not have access to basic services such as education and health care in the countries where they are transiting.

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The Shanghai Cooperation Organization in a Changing Central Asian Geopolitical Context

Rakhmatulla NURIMBETOV[1] – László VASA[2]

The article discusses the initial role of the Shanghai Cooperation Organization (SCO) in Central Asia and the latest development trends, as well as possible scenarios for its transformation in the future, with a special focus on Central Asia. The enlargement of the SCO in 2017 enhanced its geopolitical weight and expanded opportunities for further multilateral cooperation. It has a chance to transform into the Eurasian organisation. Nevertheless, these perspectives remain unclear.

Keywords: *Shanghai Cooperation Organization, Central Asia, Russia, China, geopolitics, regionalism, regional integration, transformation of the SCO*

Introduction

This year marks the 20th anniversary of the Shanghai Cooperation Organization (SCO). On 15 June 2001, the leaders of Russia, four Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan), and China signed the Declaration on the Establishment of the Shanghai Cooperation Organization in Shanghai.

The SCO is a product of the new geopolitical situation in Central Asia as a result of the collapse of the bipolar system of international relations. It was formed on the basis of the Shanghai Five, which was formed in the 1990s to find solutions to border problems inherited from the Soviet Union to the Central Asian republics. Originally operating as an ad-hoc mechanism with the active support of China and Russia, this format has become a full-fledged regional organisation by the beginning of the 21st century.

Until recently, the SCO's main focus was on Central Asia. However, the entry of Asia's large but long-time rival countries into the SCO in 2017, such as India and Pakistan, as well as the ongoing geopolitical shifts in Eurasia, pose a number of serious challenges to the organisation.

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SCO profile: "Hegemonic Regionalism" or "New Model" of Regional Cooperation

Prior to India's and Pakistan's accession to the SCO, experts used to describe the organisation as a platform for cooperation based on "competition and cooperation" (coopetion) between Beijing and Moscow in Central Asia. The approaches here are significantly different and contradict each other. This dichotomy is reflected by the critical views of Western scholars and experts on the organisation on the one hand, and by the assessment of the SCO as an example of a new regionalism by representatives of Chinese and Russian schools of political science, on the other hand.

Neo-realists in the West[3] see the emergence of the SCO as a "model of dominance in Central Asia" developed primarily by Russia and China. According to them, within the SCO, the two countries have shared "responsibilities" in the region: Russia is responsible for security and military-political issues, while China has chosen to develop economic cooperation.[4] According to this approach, the SCO is a bloc formed against NATO and the Organization for Security and Cooperation in Europe (OSCE).[5]

According to another Western school – *the normative approach,* the SCO aims to "limit democracy and human rights and protect authoritarian political regimes".[6] For example, according to Roy Allison, a British expert, the nature of SCO became obvious in the early 2000s following the "Color Revolutions" supported by the United States and other Western countries. The British expert describes the organisation as a "security integration" project that seeks to ensure the security of Central Asia's ruling elites and the current political regime.[7] So supporters of this view have described the SCO as a "club of authoritarian states whose goals and objectives are directed against Western and democratic values".[8]

Another group of Western scholars believes that the SCO is a clear example of "hegemonic regionalism".[9] According to their theory, integration associations emerging outside the Western world are formed mainly under the "patronage" of the major powers in

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3 Roy Allison, 'Protective Integration and Security Policy Coordination: Comparing the SCO and CSTO', *The Chinese Journal of International Politics* 11, no 3 (2018), 297–338.

4 Alyson J K Bailes et al., 'The Shanghai Cooperation Organization', *SIPRI Policy Paper* no 17 (2007); Stephen Aris, 'Shanghai Cooperation Organisation: An Anti-western Alignment?', *CSS Analyses in Security Policy* no 66 (2009); Nicola P Contessi, 'China, Russia and the Leadership of the SCO. A Tacit Deal Scenario', *China and Eurasia Forum Quarterly* 8, no 4 (2010), 101–123; Michał Lubina, *Russia and China: A Political Marriage of Convenience – Stable and Successful* (Opladen–Berlin–Toronto: Barbara Budrich Publishers, 2017).

5 Sean Roberts, *The Shanghai Cooperation Organization: Is It Undermining U.S. Interests in Central Asia?* Hearing before the Commission on Security and Cooperation in Europe, One Hundred Ninth Congress, second session, 26 September 2006.

6 Marcin Kaczmarski, 'Non-western visions of regionalism: China's New Silk Road and Russia's Eurasian Economic Union', *International Affairs* 93, no 6 (2017), 1357–1376.

7 Allison, 'Protective Integration and Security Policy Coordination: Comparing the SCO and CSTO', 298.

8 Anastassia Obydenkova and Alexander Libman, *Autocratic and Democratic External Influences in Post-Soviet Eurasia* (Routledge, 2015).

9 James H Mittelman and Richard Falk, 'Global Hegemony and Regionalism', in *The Globalization Syndrome – Transformation and Resistance*, ed. by James H Mittelman (Princeton University Press, 2000).

the region. Regional hegemons use such structures to strengthen their position in relations with other regions of the world and power centres.[10]

It needs to be highlighted that the views of Western researchers on the SCO, based on scepticism and concern, were formed in the late twentieth century and the first decade of the 21st century. At the time, the United States and Europe were particularly concerned about the organisation's potential to become an alternative "centre of power" that could jeopardise the Western-led world order.

Russia was initially more optimistic about the SCO as a means of shaping a new security system with its participation in Central Asia. This issue is also widely discussed in the approaches of Russian researchers.[11] At the heart of their views is the idea that the SCO is a mechanism for securing Russia's strategic interests in Central Asia. This includes not only the SCO's competitiveness with the United States and NATO, but also the need to strengthen the partnership between the SCO and other regional security mechanisms in the Russian-led region.[12] Moscow has always been a supporter of the development of security and political-military cooperation within the SCO. An example of this is the Memorandum of Understanding on Cooperation and Interaction between the Regional Anti-Terrorism Structure (RATS) of SCO, the CIS Anti-Terrorism Center (ATC) and the Secretariat of the Collective Security Treaty Organization (CSTO), signed in 2018 at the initiative of the Russian Federation.[13]

Chinese researchers are very positive about the development of the SCO, its importance for China's foreign policy, its place in the processes in Central Asia and in the system of international relations in general.

First, their research provides a conceptual basis for Beijing's official position and strategy towards the SCO. In the early 2000s, Zhao outlined the following six priorities of China's strategy towards the SCO: 1. the fight against the "three evils" (terrorism, extremism and separatism); 2. to ensure the security of border areas; 3. to contribute to regional stability; 4. participation in the economic development of the region; 5. to prevent Central Asia from falling under the influence of states or military blocs hostile to China; 6. access to energy resources in the region.[14]

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10 Louise Fawcett and Andrew Hurrell, *Regionalism in World Politics: Regional Organization and International Order* (Oxford University Press, 2015).

11 Dimitriy Vladimirovich Gordiyenko, 'Шанхайская Организация сотрудничества как площадка для диалогапо вопросам региональной безопасности' [Shanghai Cooperation Organization as a Platform for Dialogue on Regional Security Issues], *National Interests: Priorities and Security* 37 (2015), 44–66; Yulia Nikitina, 'ОДКБ и ШОС как модели взаимодействия в сфере региональной безопасности' [CSTO and SCO as models of interaction in the field of regional security]. *Индекс Безопасности* 97, no 2 (2011), 45–53; Denis Alekseevich Borisov, *Эволюция политики безопасности Шанхайской организации сотрудничества: 1996–2010 гг* [The evolution of the security policy of the Shanghai Cooperation Organization: 1996–2010]. Candidate of Science (PhD) dissertation, Tomsk State University, Russia, 2011.

12 Nikitina, 'ОДКБ и ШОС как модели взаимодействия в сфере региональной безопасности' [CSTO and SCO as models of interaction in the field of regional security], 48.

13 Меморандум о взаимопонимании по вопросам сотрудничества и взаимодействия между РАТС ШОС, АТЦ СНГ и Секретариатом ОДКБ [Memorandum on mutual understanding on cooperation and interaction between the SCO RATS, the CIS ATC and the CSTO Secretariat], 28 May 2018.

14 Chao Xuashen, 'Китай, Центральная Азия и Шанхайская организация сотрудничества' [China, Central Asia and the Shanghai Cooperation Organization], *Carnegie Moscow Center Working Papers* 5 (2005).

Second, Chinese researchers note that the conceptual elements of China's foreign policy define the doctrinal and ideological foundations of the SCO, first and foremost in the SCO Charter, which defines the ideas and concepts of the struggle against the "Shanghai spirit" and "three evils".[15] "The SCO was established at the same time with the implementation of socialist modernization and policy reforms in China. That is why its formation is directly linked to the development of China and changes in diplomacy … The SCO is a discovery of Chinese diplomacy", says Pan Dapen.[16]

Third, further developing the above views, in recent years there has been a significant increase in Chinese diplomatic and expert circles' attempts to interpret the SCO as a "new model" in international relations and to substantiate it scientifically. Wang Xiaoquan, another leading expert at the Chinese Academy of Social Sciences, believes that the SCO, based on the basic principles of the "Shanghai Spirit" (mutual trust, mutual benefit, equality, consultation, respect for cultural diversity, the desire for common development), is a unique international organisation that includes states from different civilisations and political systems. This, Wang assumes, allows promoting inclusive cooperation and "harmonious order" within the SCO, in contrast to other international structures.[17]

SCO mission in Central Asia

Despite the differences in the approaches listed above, there is no doubt that the SCO is a regional organisation initiated by China and Russia and supported by Central Asian countries. However, it raises the question of how much the SCO has contributed to the development of stability and cooperation in Central Asia, and how this is reflected.

This requires clarification of another conceptual issue. Is the SCO itself a real security organization? This again leads to the same dichotomy. A group of experts interprets it as a "guarantee of stability in Central Asia".[18] In particular, the former SCO Secretary General Rashid Alimov notes "despite the fact that the SCO is located in the immediate vicinity of global hotbeds of terrorism, extremism and separatism, the SCO has not allowed the region for which it is responsible to become a hotbed of instability, to fill the gap created here on the threshold of a new century by radical ideologies and extremists, to absorb false values".[19] Other observers, mostly Western experts, say the SCO has failed to find a solution as a classic regional security organisation, which will mainly serve to ensure the

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15 Pan Guang, 'Что такое "шанхайский дух"' [What is "Shanghai spirit"], Central Internet portal of the Shanghai Cooperation Organization (SCO); Zhang Xin, 'Opinion: The undying importance of the 'Shanghai Spirit',' *China Global Television Network, CGTN*, 03 June 2018.

16 Pan Dapen, 'Роль ШОС во внешнеполитической стратегии Китая' [The role of the SCO in China's foreign policy strategy], 01 October 2020.

17 Wang Xiaoquan, 'SCO: A new model for close, inclusive international relations', *China Today Commentaries*, 11 June 2018.

18 Van Chaotsin, 'Дееспособность при сотрудничестве в области безопасности в рамках шос' [Capacity in security cooperation within the SCO], *Теория и Практика Общественного Развития* [Theory and Practice of Social Development] 2 (2015), 54–59.

19 Rashid Alimov, *Шанхайская организация сотрудничества: становление, развитие, перспективы* [Shanghai Cooperation Organization: Formation, Development, Prospects] (Весь Мир [The Whole World] Publishing, 2017), 336.

security of authoritarian regimes in Central Asia.[20] As a clear example of the SCO's failure to become a real regional security tool, Western observers cite its "empty" position on the Afghan conflict.[21] Although Afghanistan has observer status in the SCO and the issue is constantly discussed within the organisation, there is still no single "Afghan strategy" within the structure.

However, in our view, the SCO has never been, in essence, a classical security or military organisation.

First, a more comprehensive analysis of the SCO's contribution to strategic stability and security in Central Asia is needed. Sustainability and security are very broad concepts, covering not only the issues of ensuring the sovereignty and territorial integrity of the country, but also issues of economic development and social stability. It is this approach that allows for a full and objective disclosure of the organisation's stabilising role in the region.

Second, the main founding documents, the Shanghai Declaration and the Charter, show that the Organisation aims at "strengthening cooperation in the political, security, economic, cultural, humanitarian and other spheres of the SCO". In other words, the founding states have not initially planned to create the SCO in the form of "collective security" or military-political alliance. In addition, in recent literature, the SCO has not been classified as a "collective security organisation" or "economic integration structure", but as a trans-regional organisation with a new kind of universal agenda.[22]

Third, analysts who are increasingly critical of the SCO's role in Central Asia and its activities in general do not pay enough attention to the deep essence of the concept of the "Shanghai spirit" and its place in the life of the organisation. The "Shanghai spirit" embodies the following principles: "Mutual trust, mutual benefit, equality, mutual consultation, respect for cultural diversity, the pursuit of common development."

The practical application of these principles is of great importance for the Central Asian states. As Amit R Saxena, an Indian researcher, points out, the "Shanghai spirit" – the SCO's main doctrine – has created the principles of non-interference to internal affairs and the sovereignty of member states, created immunity for Central Asia from the threat of Russia and China.[23] In turn, as the authors of the analytical document 'Regional organizations in Central Asia: peculiarities of cooperation, efficiency-related dilemmas' pointed out, "despite the strong position of Moscow and Beijing, the governments of the Central Asian republics promote their interests, by "vetoing" the consideration of issues raised by the two large countries. As a result, projects that have been pushed forward by

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20 Julie Boland, 'Ten Years of the Shanghai Cooperation Organization: A Lost Decade? A Partner for the U.S.?', *The Brookings Institution, Federal Executive Fellows Policy Papers*, 24 June 2011.

21 Richard Weitz, 'Afghanistan, not new members, will determine SCO's relevance', *World Politics Review*, 14 July 2015.

22 Alimov, *Шанхайская организация сотрудничества: глобальный профиль в международных отношениях* [Shanghai Cooperation Organization: A Global Profile in International Relations], 144.

23 Amit R Saksena, 'Structural and policy problems prevent the SCO from being an effective Central Asian security organization', *The Diplomat*, 25 July 2014.

Russia and China, despite their superiority, have not been implemented due to a lack of support from the organization's Central Asian members".[24]

In what ways is the stabilising role of the SCO reflected in Central Asia? In our opinion:

First, the SCO prevented the establishment of a clear geopolitical dominance of a major external power centre in the region, thereby ensuring geopolitical balance and strategic stability in Central Asia. In particular, the SCO has ensured that Russia and China do not fall under the influence of the United States and NATO in the region, while the Central Asian states have pursued a multi-vector foreign policy, thereby balancing the interests of leading powers and gaining political, military and economic benefits.

Second, the organisation has been balancing the strategic interests of Russia and China in Central Asia, thereby ensuring their constructive cooperation. Despite the competitive interests between the two sides, Moscow and Beijing recognise the organisation as an important regional mechanism for communication. From Russia's point of view, the SCO serves China to act in accordance with the rules of the "multilateral game" in Central Asia and, consequently, to curb its ambitions in the region. For the PRC, the establishment of the organisation "legitimised" its influence in Central Asia, that is, gave it an institutional form.[25] This has created a very important image for Beijing in its efforts to dispel accusations of pursuing an "expansionist" policy toward the region. The SCO has also acted as a "buffer" in the way of competition between the two major powers, namely in resolving disputes between them peacefully and diplomatically, and directing their competition to finding mutually beneficial solutions for regional stability. Thus, the competition between Russia and the PRC has not reached the level of conflict in the region, which could jeopardise the security, sovereignty and territorial integrity of the states here. This is a very important factor if we take into account the potential conflicts in Central Asia over the remaining border issues, ethnic and water resources, as well as threats around the region (the ongoing situation in Afghanistan, terrorism and extremism, the importance of the "Uyghur" factor for China). Therefore, its success in ensuring the balance of power is considered by many experts critical of the SCO as the organisation's "most productive political effectiveness".[26] Some observers say the SCO has served to ease political, military and economic pressure from Russia, which sees the region as its "sphere of influence" for Central Asia. At the same time, China's policy of non-interference in the internal affairs of Central Asian states and its economic assistance have helped Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan to contain Russia's influence. This means that the Central Asian states have learned to make effective use of the "competitive cooperation" of their two major neighbours, and the SCO platform has played a very important role in this.

Third, Beijing's "balancing" role with Moscow has strengthened Central Asia's ability to cooperate with the United States and NATO in the military sphere, despite its more liberal foreign policy and its membership in the Russian-led CSTO. Such a "positive"

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[24] Marlen Laruel and Sebastian Peyruz, 'Региональные организации в Центральном союзе: характеристики взаимодействий, дилеммы эффективности' [Regional organisations in the Central Union: Characteristics of interactions, efficiency dilemmas]. *University of Central Asia Report Series* 10 (2013).

[25] Zhao Huasheng, 'China's View of and Expectations from the Shanghai Cooperation Organization', *Asian Survey* 53, no 3 (2013), 436–460.

[26] Bailes et al., 'The Shanghai Cooperation Organization', 11.

contribution of China to the independent foreign policy of the Central Asian states through the SCO can be seen in the fact that they do not support Russia's interference in the internal affairs of Georgia and Ukraine.[27] Observers say that with the indirect help of China, Central Asian states have not openly supported Moscow's aggressive policy in the post-Soviet space.[28]

Fourth, given that the Central Asian republics have not been able to form a "purely regional" integration organisation, the SCO has accomplished this task to some extent. The SCO has been and remains a platform for leaders, ministers, security officials and even representatives of economic blocs and experts from Kyrgyzstan, Kazakhstan, Tajikistan and Uzbekistan to discuss issues of multilateral regional cooperation, even taking into account the participation of Russia and China.

Thus, assessing the SCO's role in ensuring stability and security in Central Asia on the basis of whether it has been formed as a "collective security organisation" or an "integration structure" does not fully explain the organisation's role in regional stability and geopolitical processes in general.

Eying on broader Eurasia?

After India and Pakistan became full members in 2017, the SCO entered a new stage. But its previous essence and profile has changed.

At first glance, the SCO has evolved from a "pure" regional organisation to the largest Eurasian interstate body. Currently, the total area of its member states is more than 34 million square kilometres. This means 60% of the Eurasian region. The total population of the SCO countries is more than 3 billion, which is about half of the world's population. In addition, four members of the organisation (Russia, China, Pakistan and India) are states with nuclear weapons and an important position in international relations. But in the post-2017 period, the potential for such a large partnership remains untapped in practice. Cooperation in the fields of economy, transport and logistics, investment and finance, promising economic sectors and implementation of infrastructure projects has not reached a qualitatively new level. In recent years, member states' aspirations in this regard are largely limited to adoption of programs of general nature and declarative documents.

In fact, the slowdown of the cooperation in the SCO began to manifest itself before its expansion in 2017. For some ten years, Beijing has been promoting two economic initiatives: the establishment of the SCO Development Bank and the Development Fund, as well as the creation of a Free Trade Area (FTA) within the organisation. Russia has opposed these Chinese attempts to institutionalise economic and financial cooperation within the organisation. In response, Moscow has pushed its Eurasian Economic Community (EAEC) and its subsequent "Greater Eurasia" concept as a top goal of its reinvented geopolitics

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27 Stephen Aris, 'Shanghai Cooperation Organization: Mapping multilateralism in transition no. 2', *International Peace Institute, IPI,* December 2013.

28 Marc Lanteigne, 'Russia, China and the Shanghai Cooperation Organization: Diverging Security Interests and the Crimea Effect', in *Russia's Turn to the East. Global Reordering,* ed. by Helge Blakkisrud and Elana Wilson-Rowe (Palgrave MacMillan, 2018).

towards Eurasia. The reason for such a strategic shift was not only the deterioration of Moscow's relations with Europe, but also its fear on the growing influence of China in Central Asia. In turn, by 2013, there was a radical shift in the global strategy of the PRC, which was partly due to the situation in the SCO. In the belief that Moscow would allow the potential transformation of the SCO into the bloc with an economic nature. "The Shanghai Cooperation Organization Faces a Strategic Choice" China's new leader, Xi Jinping, announced the One Belt, One Road (OBOR) initiative. China has decided to create a mechanism to strengthen its influence in Central Asia and Eurasia in general, without the "assistance" of the SCO.

In fact, launching of the OBOR embodied China's Eurasian grand strategy without having a deal with Moscow at multilateral formats (e.g. the SCO). In this way, Beijing's dream of turning the SCO into a mechanism of economic integration has lost its meaning. It seems the SCO has fulfilled its main mission within Beijing's strategy towards Central Asia, at least for the coming years. As the OBOR has been realising in a most assertive way, the SCO remains in its shadow. In fact, the OBOR is essentially a project based on China's previous strategy towards the SCO. In this sense, it is a continuation of Beijing's initiatives aimed at creating financial institutions and international transport corridors within the SCO, but for some reason did not materialise. In particular, the principles of "mutual consultations", "mutual benefit", "common development desire" declared by Beijing's OBOR language derive from the "Shanghai spirit", which is the cornerstone of the SCO's doctrine.

In the future, China's influence in Asia and in the world in general is expected to increase, which raises the question of what role the SCO may play in its strategy. For now, there is no doubt that the OBOR is the main foreign policy priority for Beijing. In general, both Russia and China see the SCO more as a "support mechanism" in the implementation of their regional order concepts – "Greater Eurasia" and the OBOR respectively.

There are some speculations that the Moscow–Beijing tandem may become a "trio" by the addition of Delhi. The RIC (Russia–India–China) is actively promoted mainly by Moscow, as it wants to "curb" rising Chinese influence in Eurasia. In fact, this was the main reason why Russia openly lobbied Delhi to join the SCO. In this sense, what is India's approach to the SCO and its future? Is Delhi ready to participate in building the future of the organisation within the RIC format? If the RIC would develop with success, chances of these three major powers to improve their relations within the SCO will increase. As such, it could strengthen the organisation itself, too. However, if the "trio" fails, would it have a negative impact on the SCO future?

In the near future, the following developments may hinder the effective operation of the RIC.

First, it seems that the territorial dispute between China and India will remain as a "ticking bomb", which can turn into a grave diplomatic and even military conflict at any time. The military clashes in 2020 in Ladakh province revealed a potential for such a scenario.

Second, as a result of the further deterioration of "West–Russia" and "West–China" relations, the close connections of Moscow and Beijing may worry India and cause its distancing from the RIC format.

Third, India's growing competition with China in Southeast Asia may chill the dialogue between Beijing and Delhi and even indirectly affect India's relations with Russia.

Thus, the question of the RIC's role as a potential "pillar" for the future of the SCO remains open. It is clear that the other members of the SCO – Central Asian countries and Pakistan – will certainly affect the future development of the organisation, too. However, unlike the "big three", they do not seek to establish their own geopolitical concepts in the region.

The Future of the SCO

Regardless in what way the SCO will develop in coming years, it will face the dilemma of expansion. The organisation claims its openness to the membership of other Eurasian countries and some of them have been knocking on the door for some years. For example, Iran and Afghanistan, among others.

However, current permanent members are well aware that in light of the worsening of the international situation and further aggravation of the global economy due to the Covid-19 pandemic, it is superfluous to discuss this topic. Moreover, the full adaptation of India and Pakistan to the organisation is also a time-consuming process. For this reason, it is hardly worth expecting that the SCO will accept new members in the near future. As such, we do not consider the expansion the factor of an influence on the development trajectory of the organisation in the short term.

On the other hand, the growing number of member states without addressing the institutional gaps may lead the SCO to fragmentation, provoking the emergence of "tactical alliances" within itself. This experience may be applied to other universal international organisations, as well. For example, in the SCO case, unresolved bilateral issues among the members could lead to a scenario like that. As mentioned earlier, border issues between India and Pakistan, China and India remain pending. Disagreements between Russia and China, China and India over strategic topics are also unlikely to disappear any time soon.

Thus, marking its 20th anniversary, the SCO is facing serious strategic challenges. It needs to address tough issues: from internal institutional developments to strategic competition among major members. Its member states', primarily Russia, China and India's, common answer to the question of whether this mechanism could play a key role in shaping a future fate of the organisation.

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Air Power Projection in Conduct of NATO Deterrence Activities and Operations

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This paper provides an overview and analysis of the role, place and importance of air power for the success of joint military operations in conduct of NATO deterrence activities and operations. Air power has been highly valued in defence, security and in warfare from its very beginning, since the establishment of the first Air Forces. With its modern development it has become crucial for achieving military goals, as well as national ones. The importance of air power is shown through its definition and comparison in the military doctrines of the air forces of certain countries and NATO, where it is obvious how important it is in the structure of national power, security and defence, as well as in collective security and defence of NATO. The emphasis is on the ongoing implementation of NATO military activities and operations and the projection of the Alliance's air power in deterring Russia's potential threats to its members in Northeast Europe, in the Baltic region. The current method of projection of air power and the use of its elements in these NATO military activities are discussed and presented. The special features and capabilities provided by the air power, which do not possess other military components and cannot compensate for these effects, give it a key role in supporting and conducting joint military operations, and in enabling the success of their implementation.

Keywords: *air power, air force, NATO, joint operations, deterrence, air force doctrine, power projection*

Introduction

The technological development of military aviation after World War II to date has gradually but greatly improved the capabilities of the air component of the armed forces. The air power nested in the air components of armies, of course depending on abilities in harnessing power, the composition and number makes it an indispensable ability in conducting military operations and warfare.

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'If we lose the war in the air, we lose the war, and we lose it quickly.'[3]
Bertrand Law Montgomery[4]

A statement made by Field Marshal Montgomery, while combating Germans in North Africa during World War II, vividly demonstrates the importance of air superiority for warfare success.

In the time after World War II, the development of the aircraft's performance, along with the evolution and use of jet engines, were supplemented by further possibilities, such as equipping with more modern weapons. The ability to use missiles, even at the time after World War II, as the main capability that enabled the use of nuclear weapons, meant an increasingly significant ability to project military power through air or more specifically, air force. In addition, the modernisation of aircraft with technologies for orientation, manoeuvre and defence, has made it possible to reduce the number of crew.[5]

As the characteristics of aviation grew, in a way they assumed the effectiveness of rapid action ahead of other components of the armed forces. Basic characteristics such as speed, range and altitude from which air forces can operate and deliver air power, are some of the key features for achieving military objectives.[6] The further development of technology and its application in military aviation, from the last decades of the 20th century to the present day, has improved aircraft with electronic systems of battle and defence, so-called stealth technology and "smart" weapons. This further and greatly strengthened the strategic potential of air power. As military air operations have also been developed for joint action with ground forces, this has reduced the use of ground forces over time by enhancing actions and providing freedom of manoeuvre.[7]

The possibilities of aviation in the conduct of operations are in the air, over water surfaces and seas and on land targets with other military components (land and maritime) which are defined as joint operations. The developed capabilities of aviation for the transport of personnel and cargo, as well as electronic reconnaissance and surveillance of aerosphere and data collection, must not be left out. In addition, the possibilities are not limited to aerial and surface actions, their range is wider, such as space and the cybernetic domain. Air power, therefore, has comprehensive definitions, such as the one nested in the NATO Alliance's doctrinal documents: "The ability to use air capabilities to influence the behavior of actors and the course of events."[8]

The aim of this article is to present the capabilities and importance of air power in the implementation of military activities and operations. Special focus is on NATO air activities and operations that project its air power in the implementation of current activities of assurance and deterrence of the potential threats to its Northeastern European

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3 UK Ministry of Defence's Development, Concepts and Doctrine Centre, 'An introduction to UK air power', in *Joint Doctrine Publication 0-30 UK Air and Space Power,* (2nd Edition, 2017), 2.

4 Field Marshall Bernard Law Montgomery (1887–1976), former Commander of British Army Groups in World War II, Chief of the Imperial General Staff and NATO Deputy Supreme Allied Commander Europe.

5 Karl P Mueller, 'Air Power', in *RAND Project Air Force* (John Wiley and Sons, Ltd., 2010).

6 Lieutenant Colonel Johnny R Jones, 'Air Power', *United States Air University Journal.*

7 Mueller, 'Air Power'.

8 NATO, Allied Joint Publication, 'Fundamentals of Joint Air Power', in *NATO Standard AJP-3.3. Allied Joint Doctrine for Air and Space Operations, Edition B Version 1* (NATO Standardization Office, 2016), 1-2.

members of the Alliance, which ultimately, in line with NATO's cornerstone which is collective defence, represents the protection and assurance of the Alliance as a whole.

To process the topic and achieve the goal of this paper, the method of analysis of selected national and NATO military doctrines that contain guidance on employing air power, available publications that include the analysis of air power and means for enabling its employment, as well as data on the implementation of NATO military air activities in Northeast Europe, was used. The first part of this paper presents an overview of definitions, roles and areas of air power implementation defined in military doctrines. The second part provides a description of NATO military air activities and operations on its northeast flank but also throughout the member states' airspace, as a projection of air power. The conclusion provides an assessment and significance of the effects of NATO's implementation of these military air activities.

Air power through military doctrines

The evolution and strengthening of military air capabilities are accompanied by doctrines that describe and define air power and provide core guidelines for its use. The military doctrines of the air forces are close in defining air power.

The United States Air Force Doctrine defines air power as "the ability to project military power or influence through the control and exploitation of air, space, and cyberspace to achieve strategic, operational, or tactical objectives". [9] The development of technological capabilities of air power is related to the recognition and the need to act in domains other than solely aerial in order to achieve national goals at all levels.

The United Kingdom doctrine of Air and Space Power portrays air power as one of the elements, combined with land, naval, space and cyber forces, which constitute the totality of military power and are one of the key factors of national power. It defines air power as "using air capabilities to influence the behaviour of actors and the course of events".[10]

"Air power is that element of military power applied within or from the air environment to create effects above, on, and below the surface of the Earth,"[11] is how Canadian air force doctrine specifies air power. The Air Force, which projects air power, together with other components of the Canadian Army presents a significant factor in Canada's national security system and in protection of national interests.

The Australian air force doctrine cites air power as a vital force, which, together with other parts of the military, contributes to national power. Their doctrinal definition presents air power as: "The ability of a nation to assert its will by projecting military power in, through and from the air domain."[12] Air power is a factor that contributes to

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9 Curtis E LeMay Center, 'Basic Doctrine', in *United States Air Force Doctrine* (Maxwell, 2015).

10 UK Ministry of Defence's Development, Concepts and Doctrine Centre, 'An introduction to UK air power', 5.

11 Canadian Forces Aerospace Warfare Centre, 'Air Power Doctrine', in *Royal Canadian Air Force Doctrine* (2015), 1-1.

12 Royal Australian Air Force Air Power Development Centre, 'Fundamentals of Air and Space Power', in *The Air Power Manual* (Australian Air Publication, 2013), 121.

national security, with the role of supporting and enabling the action of other subjects of national power.

All of the above listed and presented notions from military doctrines depict a similar understanding and emphasise the role, importance and contribution of air power to national strength, national defence, and to the pursuit of national interests. Looking from a military aspect, the doctrines provide fundamental guidelines for the use of air power in military activities and operations and refer to the operational principles and employment of air power in various types of military operations.

The guidelines set out the principles of air operations and the use of air power in autonomous air operations, air support operations to other military components and in joint operations together with other military components (land and naval), for the purpose of achieving military and political goals. Furthermore, in addition to the use of air power for national purposes, they set rules and conditions for participation in joint coalition and international operations.

NATO Allied Joint Doctrine for Air and Space Operations, whose definition of air power has already been presented, consolidates the principles for conducting air operations as part of joint multinational Allied operations, and thus defines the use of air power, which is accepted by all thirty member states of the Alliance. It also emphasises the advantages of using air power due to speed, long range and the ability to act from a height, and defines the key roles of air power and the types of air operations by which it should be projected. Primarily for the defence, and then for the protection of the interests of the Alliance, the role of air power serves to achieve goals at all military and political levels through, counter-air (protection of air domain through defensive or offensive operations), attack, air mobility and contribution to intelligence, surveillance and reconnaissance operations as well as support to joint personnel recovery. The conduct of these operations is also a large enabler for the effective manoeuvre of other military components participating in joint multinational Allied activities and operations.[13] Having said this, it should be noted that aspects and capabilities vested in air operations are extremely valuable input and part of the planning of all joint military operations.

As already mentioned, air force capabilities have been developed to operate through the air, space and cyber domains. As it is commonly known, air power can be delivered by means such as fixed and rotary wings combat and transport aircraft, reconnaissance surveillance and electronic aircraft, unmanned aerial aircraft, etc., which are parts of airborne capability within the overall air power composition.

The elements that determine the overall concept of the air force are the composition of airborne elements, effective command and control system, an industry that can meet specific requirements, supporting electronic systems, air bases, quality personnel and their training, strategic guidelines, effective planning, developed intelligence gathering system and timely and effective logistic support.[14]

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13 NATO, 'Fundamentals of Joint Air Power', 1-1–1-18.

14 Sanu Kainikara, 'What Constitutes Air Power?', in *Pathfinder Collection Volume 9*, ed. by Sanu Kainikara (Canberra: Australian Air Power Development Centre, 2019), 23–26.

Although the whole air power system is very demanding in design and quite expensive in production and maintaining, the performance capabilities obtained, which are manifested through speed, accuracy and long-range efficiency in individual and synergistic action with other military components, emphasise the indispensable role and very often the primacy of air power projection in conducting and supporting military operations.

Forward basing as a means of air power projection

Even though projecting military power can be conducted in several ways and by any means, one of the most regular methods is establishing or to be hosted in base(s) in the partner or allied countries. Even air forces need bases around or within the specific area of operation in order to enhance their range, time on target and responsiveness.

If we are looking for a more scientific (but even more theoretical) background of establishing overseas bases, the 'loss-of-strength gradient' can be mentioned which was created and explained by Kenneth E Boulding in 1962. He said, and explained his theory through complex mathematical formulas, that the further we go and the longer the chain of supply is, the more strength we lose compared to that strength we could utilise from our home bases during a conflict near us.[15]

The critics of this theory, even Boulding in his next book[16] said that by the utilisation of modern weapon systems like missiles, strategic bombing aircraft and solutions like rapid global airlift eliminate the significance of this idea. Nevertheless, the former facts exist; these assets cannot apply in every case.

Conflicts of our days proved that centres of gravity are not always easy to determine or almost impossible. Fighting against a hiding, irregular or harassing adversary necessitates much more time on target and constant air presence. Hence, to realise a constant air presence, one needs to project its military power, including air power to overseas or forward-deployed military bases.

Even if the model is insular or simplistic, the basic idea is valid; it is enough if we take a look at the praxis in the conflicts of the 20th century:

- American aircraft were deployed into England during World War II against Germany
- American troops and aircraft were deployed into Korea, Vietnam and into the neighbouring region
- aircraft of the American-led Coalition were deployed into the Middle East (mostly into Saudi Arabia) during the war against Iraq in 1990–1991
- NATO aircraft were forward based in countries of alliance around former Yugoslavia in 1999
- NATO aircraft were forward deployed into Sicily during Operation Unified Protector, against Muammar al Gaddafi's regime in Libya

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15 Kenneth E Boulding, *Conflict and Defense: A General Theory* (Auckland: Valmy Publishing, 2018).

16 Kenneth E Boulding, *The Meaning of the Twentieth Century: The Great Transition* (London: George Allen & Unwin, 1964).

Current NATO air power projection in Northeastern Europe

NATO's main strategic orientation is defence, collective defence of Alliance, its populations and borders. In case of perceived threat to NATO members, consultations and mutual support activities in reassuring threatened members of Alliance, boosting collective defence capabilities and deterring potential threat are the measures to be taken.

This part will present current NATO assurance and deterrence activities and operations which started in 2014, with sole focus on air operations and projection of NATO air power in the Baltic region, encompassing the area of Alliance's member states (Estonia, Latvia, Lithuania and Poland).

They are response to the changed security situation on NATO's eastern borders, caused by Russia's illegal annexation of Crimea, destabilisation and activities in eastern Ukraine, as well as with increasing of activities and concentration of Russian military forces near NATO's eastern borders. The initial response was limited to assurance measures activities; monitoring and providing eastern Allies land, maritime and air picture, conducting interoperability driven exercises and assisting in the development of particular military capabilities. Further increase in Russia's military training activities near eastern NATO borders, violations of airspace, hybrid warfare activities, information and psychological operations, cyberattacks, propaganda in Northeastern European countries of Alliance, occurred and are ongoing.[17]

This has led to an intensification of the Alliance's activities in deterring potential threats. The number of NATO military exercises within Allied territory increased accompanied by the deployment of NATO multinational ground forces.

Conduct of NATO naval and particularly air force activities, projecting air power in the area was intensified since 2014, as well. Current NATO air power elements and activities are:[18]

1. Baltic Air Policing mission with task of protecting the airspace of the Baltic States (Estonia, Latvia, Lithuania and Poland). It is a collective (Allied) multinational continuous Air Forces presence, consisted of fighter aircraft and crews, which are reacting rapidly in case of airspace violations with interception and redirection out.
   – The air squadrons of participating NATO member states are deployed on a rotational basis, and are permanently present at three military air bases in Estonia (Amari), Lithuania (Šiauliai) and Poland (Malbork).
2. Joint Intelligence, Surveillance and Reconnaissance mission over Baltic states, with the aim of providing timely information and intelligence to NATO political and military structure.
   – Aerial assets in use: Alliance Ground Surveillance (AGS) system and Airborne Warning and Control System (AWACS) aircraft.

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17 Mariusz Fryc, 'From Wales to Warsaw and Beyond: NATO's Strategic Adaptation to the Russian Resurgence on Europe's Eastern Flank', *Partnership for Peace Consortium of Defense Academies and Security Studies Institutes Connections Quarterly Journal* 15, no 4 (2016), 45–65.

18 NATO, 'Deterrence and defence', s. a.; NATO, 'Baltic Air Policing', s. a.

3. Airborne Warning and Control System (AWACS) patrols over Eastern Europe mission with task to patrol the skies over Eastern Europe and provide early warning in case of violations of Allied airspace.

It should not be neglected that the existence of air bases with accompanying units and the further additional national and Allied investments in their capability to receive and service modern air components, such as in air bases in Estonia, Lithuania and Poland, are important contributions to air power projection, too.[19]

Since the beginning of the implementation of Baltic Air Policing, there have been frequent violations of Allied airspace in the Baltic region by Russian aircraft. In certain cases, Russian civil aircraft were also involved in these incidents during establishing connections between mainland Russia and the Russian exclave of Kaliningrad, which is located between Lithuania and Poland. As violations occurred, they were intercepted and diverted out of space by the NATO air forces. In addition to these air force actions, NATO's political and diplomatic activities with the Russians followed, resulting in Russian announcements of civilian flight plans, and to some extent in a reduction in airspace violations.[20] The main effect of Baltic Air Policing is the constant presence in Allied airspace and the demonstration of air power (in this case in synergistic action with radar systems as well) and determination in the protection of airspace in any case of violation of the specified area.

The joint actions of all NATO's air power elements are in accordance with NATO-defined roles, namely maintaining control of airspace, its inviolability, permanent security, and gathering valuable intelligence on a potential adversary, including those from the cyber domain, in order to defend against or prevent the hybrid action of the potential opponent. An additional activity and contribution of these air elements is the continuous participation in joint exercises with the components of NATO ground and naval forces in the area, which increases interoperability in operations and strengthens joint, collective defence capabilities.

Conclusion

The fundamental determinants of air power are of utmost importance for the establishment of sovereignty in the airspace in all conditions, with the purpose of achieving overall national and collective security and defence.

The ability to act rapidly, at long distances and from heights and distances against potential threats, as well as the ability to operate against targets in the air, on land surface and at sea are not inherent in any other military component.

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[19] Elisabeth Braw, 'NATO's New Frontlines: Security and Deterrence in the Baltic Sea Region', *Atlantic Council*, November 2016; Lithuanian Armed Forces, 'NATO Air Policing Mission – Baltic Air Policing', s. a.

[20] Denitsa Raynova and Lukasz Kulesa, 'Russia–West Incidents in the Air and at Sea 2016–2017: Out of the Danger Zone?', *European Leadership Network*, October 2018; Thomas Frear, 'Lessons Learned?: Success and Failure in Managing Russia–West Incidents 2014–2018', *European Leadership Network*, April 2018.

The importance of air power was recognised by the emergence, development and effects of aviation by victors and losers in wars, both.

> *"Anyone who has to fight, even with the most modern weapons, against an enemy in complete command of the air, fights like a savage against modern European troops, under the same handicaps and with the same chances of success… The fact of British air superiority threw to the winds all the tactical rules which we had hitherto applied with such success. In every battle to come, the strength of the Anglo-American air force was to be the deciding factor."*[21]
>
> *Erwin Rommel*[22]

Air power is essential for an effective response to potential threats from any domain. In addition to its first task which is the preservation and control of airspace, the effective integration of the air force during joint operations along with significant and unique combat support capabilities enables the successful conduct of military operations.

NATO is currently in a position to resist Russian hybrid activities, aggressive propaganda and cyberattacks, with associated demonstrations of military force and violations of the airspace of its members on the eastern borders of NATO, especially in the Baltic region. The main response to this perceived threat, in addition to the implementation of political and diplomatic measures, is the conduct of joint military activities and operations aimed at deterring potential aggression, of which air power projection is of utmost importance.

The air force is a vital operational potential nesting air power projection, whose action is interwoven with the actions of other components of the military force, which makes deterrence credible, and in case the deterrence fails, it would be, due to its characteristics and capabilities, the key element in delivering primary and continuous response in defending against any potential attack.[23]

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21 Basil H Liddell-Hart (ed.), *The Rommel Papers* (New York: Harcourt, Brace and Company, 1953), 285–286.

22 Field Marshall Erwin Rommel (1891–1944), former German military commander and strategist in World War II.

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Short Study: Describing the Major Features of the Russian Battalion Tactical Group

Márk TAKÁCS[1]

Today we have clear evidence, that in Eastern Ukraine regular Russian forces have fought on the separatists' side. Based on open sources, the main type of unit deployed by the Russian Armed Forces is the Battalion Tactical Group. These Battalion Tactical Groups were deployed in almost all battles of the Russo–Ukraine war. In these battles, the Battalion Tactical Groups used the latest available Russian military equipment and they used them by the latest Russian manuals. It is very important to get familiar with the battle performance, the equipment and the tactics used by the Russian Battalion Tactical Groups in order to have a clear picture of the main tactical formation implemented by the Russians in Eastern Ukraine.

Keywords: *tactics of motorised rifle units, activities in hybrid warfare, Russia, Ukraine, battalion, infantry, motorised rifle*

Introduction

The Russian Battalion Tactical Group (BTG) is the main tactical formation used by Russia in the Eastern Ukrainian war. The Russian BTG is a modular tactical organisation created from a garrisoned Russian Army brigade to deploy combat power to conflict zones. It has been around since the Soviet times and is employed by not only the Ground Forces but also Airborne and Naval Infantry units.

The Russian BTG – although the name is almost the same as the NATO formation's name – is not equal with the NATO standard Battalion Battlegroup. In my study my goal is to describe the BTG, show its structure, its weapons used and how it conducts combat operations. The reason why I write about the BTG is that the Russian Federation deploys BTGs everywhere it takes part in an armed conflict (i.e. Georgia, Syria, Ukraine), so if NATO will face Russia in a future conflict, it is highly possible to meet with the Russian BTGs.

In this study, I will use the term "motorised rifle" instead of the term "mechanised infantry", because the proper translation of the Russian expression is "motorised rifle".

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Structure

The BTG is created from a Russian Army Brigade. In order to understand the BTG, we have to take a look at the Brigade. The 2010 reform made the Russian Army transit to brigade from division. This reform (among other things) resulted in forming modular manoeuvre brigades of approximately 3,000–4,500 soldiers, each capable of conducting independent action and providing its own organic support. Each brigade is typically also a separated garrison. Serdyukov's reforms[2] converted most of the force into independent brigades. The regimental/divisional structure is still common in the Russian Airborne (VDV), and there are still a few of the Ground Force Divisions, but the vast majority of Russian combat power is now found in independent brigades.

In terms of logistics, the difficulties of deploying and supporting a brigade is much easier than that of a division. Russia now has a much easier time projecting combat power by using smaller independent units. This is mainly due to the fact that the Russian Ground Forces make extensive use of rail transport, and smaller units are, of course, easier to transport.[3]

Russian manoeuvre brigades are composed of battalions, platoons and squads. Unlike U.S. brigades, which typically have only battalions reporting directly to the brigade commander, Russian brigade commanders may also have companies, platoons and squads reporting to them as well. Of course, these small directly attached subunits belong to combat support combat arms, such as electric warfare (EW), artillery observer (AO), CBRN, etc. These subunits are also important in the viewpoint of the BTGs because the BTG can receive some of these subunits, depending on the BTG's task.

In spite of being formed by a brigade, the very cornerstone of the BTG is a motorised rifle battalion. Battalions and below are considered "subunits" in the Russian system. Motorised rifle battalions have very similar structures, whether they are based on MT-LBs, BMPs or BTRs. However, battalions equipped with BTRs have an additional antitank unit because of the BTRs' less firepower. The battalion typically has three motorised rifle companies, a mortar battery (when deployed in conflict zones, the artillery battery is usually replaced by self-propelled or rocket artillery units up to the size of a battalion[4]), and reconnaissance, grenade launcher, antitank, signal, engineer and combat support platoons for a total of approximately 500 soldiers. If the battalion is acting independently, it is often organised to be a BTG. In this case, the battalion could have attachments including air defence missile, reconnaissance and logistical subunits as needed.[5]

The typical BTG that appeared in Eastern Ukraine has these attachments.[6] But above these attached subunits, the BTGs received a tank company and sometimes a rocket artillery company in order to enhance the BTG's firepower.

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2 Dr Lester W Grau and Charles K Bartles, *The Russian Way of War* (Fort Leavenworth: Foreign Military Studies Office, 2016), 32.

3 Aleksey Ramm, 'The Ukraine Test: The New Image of Armed Forces Spoiled by French Kitchens', *Voyenno Promyshlenny Kuryer*, 29 April 2015.

4 Scott Boston and Dara Massicot, *The Russian Way of Warfare* (RAND Corporation, 2017), 10.

5 Grau and Bartles, *The Russian Way of War*, 35.

6 Nicholas J Fiore, 'Defeating the Russian Battalion Tactical Group', 2017, 2.

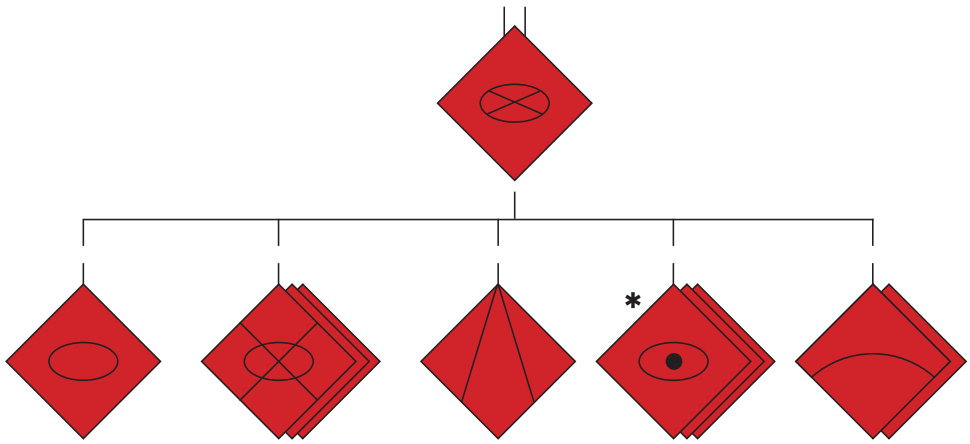

Figure 1: Schematic structure of a typical Russian BTG used in Eastern Ukraine

Source: Fiore, 'Defeating the Russian Battalion Tactical Group', 2.

In the view of the personnel, the BTG perfectly illustrates the Russian Army's personnel composition in the middle of a reform. As many as a third of the deployed soldiers were high-quality contract (volunteer enlistment) soldiers who were recruited to be the noncommissioned officer corps of a modernised and professional Russian Army. They served primarily in the combat, EW and fires roles. The supporting units consisted primarily of lower-quality conscript soldiers.[7]

Captain Fiore in his article states, that the conscripts have a huge negative effect on the BTG's combat effectiveness: "This distinction is important: conscripts must be supervised continuously for even the simplest of tasks and are rarely used in combat."[8] I do agree, deploying conscripts has a huge effect on the combat effectiveness of the BTG. But in my point of view, it is not a totally negative impact. The conscripts serve a limited time in the military, hence they can only be taught to conduct only one or two specific types of combat activities. But thanks to the limited types of combat activities, the conscripts can be trained to be masters of those one or two specific tasks. This "specialisation" of course makes the conscripts less versatile, but in case they are conducting a specific combat activity, which they are familiar with (i.e. convoy escort, attack in urban areas, etc.), they can achieve very high effectiveness.

Furthermore, using conscripts led by professional NCOs and officers harmonises with the Russian way of military decision-making (see sub-section *Mission command and decision-making*).

7 Ibid. 3.
8 Ibid. 3.

Technology and equipment

Historically, local wars, and particularly proxy conflicts where one or more major powers are actively arming and supporting a belligerent, have often foreshadowed new technological developments that end up having a significant, at times decisive, role in subsequent major power conflicts. Ukraine is in fact a "proxy" conflict, but only in part. Soviet-era equipment is present in large numbers on both sides, while the Russians are actively introducing newly developed weapons systems from sniper rifles to advanced electronic countermeasure vehicles.[9]

The Motorised Rifle Troops is the largest of the Branch of Arms in the Ground Forces, providing the foundation of the Ground Forces. The epitome of the Motorised Rifle Troops is represented by the motorised rifle brigades with their high operational autonomy, versatility and firepower. They are able to conduct day/night combat under conventional and weapons of mass destruction conditions in different physical environments.[10] This statement is very important because as I have already mentioned, the BTGs deployed in Eastern Ukraine are formed by motorised rifle brigades.

In general, these battalions are based upon BMP, BTR or MT-LB chassis. The BTR and MT-LB based units are generally bigger for the reason that they have dedicated antitank units because of the BTRs and MT-LBs smaller firepower.

IFVs and APCs

The BTR-80 is widely used by both warring parties in the Russo–Ukraine war. The BTR-80 is part of the long evolution of the Russian Armoured Personnel Carriers (APC) and represents the technological standards of the late 1980s. Its light armour can protect its crew (driver, gunner, commander) and the mounted infantry (up to 8 soldiers) from artillery fragments and small arms fire. Its main armament is the 14.5mm KPVT heavy machine gun and the coaxial 7.62mm PKT machine gun. Although the Russian Armed Forces use the BTR-82/A (equipped with a 30mm autocannon), there is no evidence of using this type of vehicle, so I will focus on the BTR-80.

The advantages of the BTR-80 is its low profile (it is only 2.35m high) and its high speed. The disadvantages are numerous. Its armour cannot protect the crew and the mounted infantry even from armour-piercing shells fired from 7.62mm machine guns to the top of the vehicle. Furthermore, it has literally no protection against higher calibre heavy machine guns and antitank weapons. The BTR-80 has very limited night fighting capabilities. The turret is not stabilised, so it can fire effectively only from standing position or from short stops, conducting movement. A further disadvantage is that the terrain can easily hamper the freedom of movement. A younger tree line or a very muddy road makes it impossible to pass for the BTR-80, therefore, the high speed of the vehicle can be exploited only on good quality roads and large open fields. The lack of armour

[9] Philip A Karber, 'Lessons Learnt from the Russo–Ukraine War', *The Potomac Foundation*, 2015, 12.
[10] Grau and Bartles, *The Russian Way of War*, 209.

protection and the difficulty to open the doors resulted in the method that the infantry does not climb in the vehicle, but travels on top of it.[11]

The BMP-2 Infantry Fighting Vehicle (IFV) is the basic IFV used by the ex-Soviet militaries. Its advantages compared to the BTR-80 are its improved armour (however, the wrecks in Eastern Ukraine show that the BMP-2 also cannot withstand the 30mm cannon and the RPG) and the fact that the BMP is a tracked vehicle; therefore, it can move more easily than the BTR-80. Its main armament is the 2A24 30mm autocannon and the 9M113 Konkurs anti-armour missile. Also, it has a coaxial 7.62mm PKT machine gun. In Eastern Ukraine, both warring parties used the BMP-2 widely. It is important to note that if the BMP-2 is used by a well-trained crew, in a well-led unit, against similar level military equipment, it is still a potent IFV.[12]

Crew-served weapons

The military field manuals and theoretical papers often refer to the PKM and the RPG as crew-served weapons, but in the Russian system (and more importantly in combat) these weapons are handled by one soldier.

Therefore, in this part, I will only write about the 9P115 Metis antitank wire-guided missile launcher that fires the 9M115 Metis or 9M131 Metis-M missile. It can effectively destroy armoured targets (even main battle tanks) up to 1,500 metres. It carries a HEAT warhead, and only the most modern active self-defence equipment (which cannot be found in Eastern Ukraine) can protect the armoured assets against this weapon. The Metis can be found in the motorised rifle companies' and/or battalions' antitank platoon.[13]

Small arms

The venerable AK-74 is available in large quantities and will be standard for years to come. The AK-74 is a line descendant of the AK-47 and the AKM, however, the AK-74 joined the "small bullet trend" introduced by the M-14 in Vietnam. The 5.45 x 39mm cartridge fires a lightweight, high-velocity bullet up to 500 metres of effective range. It is not particularly accurate, but in the nature of this conflict (overwhelming fire before manoeuvre) it is not a big problem.

The RPK squad automatic weapon is the basic small arms, around which the infantry squads' fire system is built. It is basically an AK-47 with a longer and of course more durable barrel. It has an effective range of up to 800 metres and is reliable and easy to use. The main role of this weapon is to provide suppressive fire during the squad manoeuvre. Sooner or later this will be replaced by the PKP machine gun.

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[11] The description of the BTR-80 is made by the author based on his extensive experiences with this APC.

[12] See https://fas.org/man/dod-101/sys/land/row/bmp-2.htm

[13] Rosoboronexport, Russian Defence Export, Metis M-1. Online: http://roe.ru/eng/catalog/land-forces/missile-systems-multiple-rocket-launchers-mrl-atgm-systems-and-field-artillery-guns/metis-m1/

The PKM medium machine gun is the best medium machine gun in the world. It is very accurate up to 600 metres but has a powerful suppressive effect up to 1,000 metres. It is easy to use, very reliable, and last but not least the lightest medium machine gun infantry can have. The PKM is a very effective machine gun and widely used by both sides in the Russo–Ukraine War.

The RPG-7V is the most widely used anti-armour weapon in the world. Its ruggedness, simplicity, low cost and effectiveness have kept it in the Russian motorised rifle squad since 1961. It has a HEAT, tandem HEAT, fragmentation and thermobaric rocket with an effective range of 200 metres. The RPGs are widely used in Eastern Ukraine by both sides and they pose a large threat to BTRs and BMPs.[14]

The way the BTGs fight

Since the Russians use a much different military decision-making process (which I will describe in the subsequent parts of my study) than used in the West, applying the Western concept of Warfighting Functions (WFFs) to their tactics and operations should be done with great care. In practice, the Russians do not discuss or even have a concept of WFF (Movement and Manoeuvre, Fires, Intelligence, Sustainment, Mission Command, Protection) as distinct elements assigned to various members of the staff. Instead, the WFFs are always discussed in aggregate. As the commander is much more involved with the mechanics of planning, he is also responsible for the coordination of the WFFs essential for the execution of the mission.[15]

This is the reason why I have mixed the order of the WFF elements, starting with the more important. Furthermore, I have found that some characteristics of the BTGs fit in more than one WFF, so I have discussed them in the view of multiple WFFs.

Mission command and decision-making

Problems with command and control and suitable employment of attached units are subjects that are not highlighted in open Russian military discussions.

In the NATO system, if at lower echelons, Mission Command is more of a science than art; at higher levels, it is more of an art than science and this situation is even more so in the Russian system. The science of combat involves the commander picking the best option for accomplishing the mission and adjusting the variables needed. This process is assisted by rigid tactics and predictability. Commanders pick from a "menu" of known tactics. Although this would irk a U.S. (or similarly NATO) commander, Russian commanders are comfortable with this system because, although tactics are simple, albeit in aggregate,

[14] The characterisation of the AK, PKM and RPG is made by the author based on his extensive experiences with these weapons.

[15] Roger N McDermott and Charles K Bartles, 'The Russian Military Decision-Making Process and Automated Command and Control', *GIDSresearch* no 2 (2020), 34.

when multiple simple tactics are combined to accomplish a given task, a given manoeuvre could appear complex. Since these manoeuvres are not developed "on-the-fly" and are instead a collection of simple tasks, the planning process is much less involved than an equivalent manoeuvre by a U.S. unit.

As I mentioned above, using conscripts led by professional NCOs and officers harmonises with the above described Russian way of military decision-making. Conscripts can be trained to conduct only some very specific tasks. The squads and platoons consist of soldiers trained like this who are comfortable with conducting only some specific tasks that they are highly trained for. Of course, this means limited tactical flexibility, because a given unit can conduct only some specific tasks at a high level, other combat activities may not be conducted at a professional level. Although since the Russian military had the initiative in Easter Ukraine (except the summer of 2014) it was not a major problem, they experienced only the advantages of this "specialisation".

The contemporary manoeuvre battlefield has a great tempo, very little reaction time in a large battlespace, and high lethality. Once the battle is joined, the tempo and sudden changes on the battlefield leave little time to produce and disseminate intelligence and formulate plans and orders. Cyberattacks and electronic warfare threaten communication.

In the NATO-style MDMP system, the staff develops COAs regarding the commanders' intent and the current situation. And after consideration (the length of which depends on the time available) the commander decides what to do. The Russian system is different, the Russian commander is much more involved in the process. In the Russian system, it is the commander who develops the course of action, not the staff. Upon receipt of orders, the Russian commander makes his decision based on his orders and understanding of the operational environment and passes his decision to his staff and subordinate commanders for implementation. His decision has at least three elements, the concept of the fight, tactical missions and coordination. The commander outlines his plan on a battle map, selecting from a collection of well-rehearsed tactical battle drills. The Russian tactical staff is normally smaller than its Western counterparts; this is due not only to the more active role of the commander but also due to the emphasis on battle drills and repetition, which lessens planning duties.[16]

All in all, we can see, that the Russian military decision-making process is faster than the NATO-style. It is because it puts a much more emphasis on using drills and well-rehearsed tactics, and also during planning, the staff uses a wide scale of mathematical nomograms. This makes the process faster but it also has a great risk of being easily predictable. It is a question that can be decided only at the field of battle: which warring party will achieve success, the one that is faster or the one that is more detailed and sophisticated.

[16] Ibid. 31.

Movement and manoeuvre

The nature of warfare has radically changed since the end of the Cold War. Modern combat will involve greater depth, fluidity and mobility than in the past. Continuous defensive lines of shoulder-to-shoulder will give way to open flanks, meeting engagements and the struggle to gain important areas that will undermine the tactical stability of the defensive forces.[17]

The above-cited statement has a charming irony, hence in the Russo–Ukraine War only once happened something that supports this changing nature of warfare. The irony becomes more charming if we highlight the fact that this operation was conducted by the Ukrainians. This one occasion was the "Great Raid" conducted by a brigade-level combat team of the Ukrainian Army in the summer of 2014. Otherwise, I agree, the joint forces combat is becoming even more mobile, fluid and rapid, the first year of the war proves this statement.

In order to meet the requirements of the 21st century's joint forces combat, the Russian BTG has to be able to perform troop movements and conduct combat manoeuvres in a very fast way. According to all relevant Western, Russian (and even Hungarian) field manuals, the troop movement is always a planned, organised and continuously led activity. The goal of the troop movements is to move a unit from its departing positions to a desired area. The unit must arrive at an exact time and in full combat strength. To achieve these goals, the units conducting troop movements have to use formations and battle order.

In order to arrive at the battlefield, the Russian BTGs had to use marching formations. March can be administrative and combat marches. I do not intend to deal with the moving of the BTGs from their garrisons to Eastern Ukraine. My focus is on the troop movements conducted West of the Russian–Ukrainian border. These marches were all combat marches. In order to successfully conduct a combat march, the marching unit has to utilise camouflage at a very high level. Camouflage has to be active, realistic and permanent. The camouflage was not only a need of the battlefield, but it was an intention of the high politics, to cover the presence of Russian forces as long as possible. To avoid early detection by Ukrainian ISR elements, the Russian BTGs had to employ strict radio silence. In nowadays conflicts' saturated electronic "battleground", the most important part of camouflage is the electronic camouflage. This not only means the above-mentioned strict radio silence, but the complete absence of using callsigns, names and keywords, which can be a betrayal. To accomplish this, the Russians deployed a wide scale of EW assets.

The other key element to the movement's success is to utilise the correct battle order. The main part of the battle order is the unit's formation. The ground units' standard march formation is the column. The marching column is organised so that the battalions may move directly into combat if needed. It means that the order of the column must assure the ability to quickly shift to combat formation from march formation. These key features of combat marches can be found in the Western and Russian manuals also. This is natural

[17] U.S. Army FM 7-100.2, *Opposing Force Tactics*, 4–3.

because at this level the rules of combat compel both sides to meet largely the same requirements.[18]

Because of that, I assume, that the fundamentals of combat marches are similar to the rules utilised by NATO armies. The Russian BTG will use recon elements not less than 24h before the arrival of the BTG. The BTG will send out a vanguard platoon and this platoon also sends a recon squad, just like the NATO armies would do. The Russian BTG also utilises screening forces at the sides of its movement corridor, also just like the NATO armies would do.

The Russians are considered to be the masters of the "maskirovka" (camouflaging troops). This remains true, hence the Ukrainian military suffered some shocking surprise attacks in the late spring and summer of 2014 (i.e. Zelenopylya rocket artillery attack). The Ukrainian military did not have evidence of Russian troops fighting in Eastern Ukraine until they met them at the battle of Ilovaysk (10 August 2014).[19] This means the Russian BTGs conducted troop movements from the border to their Area of Operations at a very professional level. The complete air defence superiority largely contributed to the success of the concealment.

Manoeuvres can be conducted by fire or by troops. Manoeuvre by troops is the organised movement of troops during combat to a more advantageous position to attack or repulse the enemy. Manoeuvre makes it possible to seize and hold the initiative and prevent enemy success, and most importantly, to create a grouping of forces favourable to us. The Russo–Ukraine war is a conventional armed conflict. As it is a conventional armed conflict, it is not a surprise that most of the combat manoeuvres were conducted during offensive or defensive operations.

An attack against a defending enemy can be from positions in direct contact with the enemy or from the march. When possible, Russians prefer to attack from the march. Often the first battle will be the covering force battle, where Russian forward detachments push through light enemy screening forces and call air, missile and artillery strikes on them. Air assaults may supplement forward detachment effort to cut off enemy units in the covering force area.[20] In Eastern Ukraine, the Russian Air Force was not used for obvious political reasons. But the battle of the covering and screening forces came more into focus. Mainly when the pro-Russian forces gained territory, it was a constant struggle of the screening forces. In the battle of Ilovaysk and the battle of Debaltseve, the pro-Russian forces steadily tried to infiltrate the Ukrainian defences and when they have found the weak points, the manoeuvre forces conducted the main attack.[21] However, in Eastern Ukraine, the recon tasks and the probing attacks were conducted by separatist militias and only the main attack was conducted by regular Russian forces.

Since the beginning of the conflict, the extended use of indirect fires could be seen. In this part, I only mention that the support from the local civilians and the widespread use of

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18 U.S. Army FM 3-21.1, *SBCT Infantry Rifle Company,* 3–9.

19 Radio Free Europe/Radio Liberty, 'British Investigators: More Evidence Found of Russian Role in Donbass', 19 August 2019.

20 Boston and Massicot, *The Russian Way of Warfare,* 9.

21 Niklas Masuhr, 'Lessons of the War in Ukraine for Western Military Strategy', *CSS Analyses in Security Policy* no 242 (2019), 2.

infiltration tactics made it extremely easy to locate Ukrainian forces and to control indirect fires against them (for the use of indirect fires see sub-section *Fires*).

There are five basic types of combat manoeuvres. Envelopment, encirclement, breakthrough, frontal attack, evasive movement. At the tactical level, these manoeuvres are largely the same as in the NATO manuals. The main difference is the speed and the fires employed during the manoeuvre. Although these specific features of Russian military manoeuvres can be observed only during military exercises, hence in Eastern Ukraine the Russians were keen to avoid exposing their troops and putting them into the first line, mainly for political reasons (avoid providing evidence of Russian Army presence). There were only limited occasions when Russian BTGs conducted combat manoeuvres against the Ukrainian forces (see sub-section *Examples from the battlefield*).

All in all, it can be determined, that the Russian BTGs can conduct the same types of manoeuvres, known in the NATO, but the main difference is the speed (the main reason is the high mobility of IFVs) and the extensive use of fires, supporting the movement.

Intelligence

Almost everyone has an image of the professional and highly effective Soviet KGB agents. By today this is long gone. The KGB's successor intelligence agencies became more effective and they use the latest technology to gather the information needed.

In the Russian system, the term intelligence can mean intelligence or reconnaissance or a combination of both. In a military context, especially at a tactical level, the term usually refers to reconnaissance activities. At the battalion level, the officer in charge of the intelligence staff section is also in charge of reconnaissance, but since at the battalion level most manoeuvre units do not have dedicated reconnaissance assets, regular units from the battalion are assigned for this purpose on an ad hoc basis. The main difference between the Russian BTG's intelligence officer and the NATO-style S2 officer in charge is that the NATO S2 officer in charge does not directly command any reconnaissance units, but the Russian does. The implication of this systemic difference between the Russian and Western acquisition of intelligence is that Soviet/Russian reconnaissance units, such as Spetsnaz, would be normally associated with the intelligence staff, as opposed to the operations staff as in most Western armies.[22] However, in the Russo–Ukraine war, the Russians avoided using the regular units for ad hoc reconnaissance missions, in order to avoid being captured by the Ukrainians.

In the Russo–Ukraine war, the main ways of gathering information were the recon tasks made by local militias, drones, electronic intelligence and recon by force manoeuvres. This conflict is the first in which the UAVs (Unmanned Aerial Vehicles) have been present on both sides in significant numbers and they can have a dramatic impact that is quite different from anything experienced in unilateral American use.

The surprising thing about the Russian use of drones is not in the mix of vehicles themselves or their unique characteristics, but rather in their ability to combine multiple

[22] National Security and Defence, No. 1–2, Razumkov Centre, 2019, 40.

sensing platforms into a real-time targeting system for massed, not precision, fire strikes. There are three critical components to the Russian method:

- the sensor platforms which are often used at multiple altitudes over the same target with complementary imaging
- a command-and-control system, which nets their input and delivers a strike order
- an on-call ground-based delivery system that can produce strikes within short order[23]

The wide-scale use of drones remained the main characteristic of warfare after the great battles ended. The trench warfare of the past 2–3 years resulted in the phenomenon that instead of the conventional ways of reconnaissance, the drones and the EW assets came into focus.

Russia's growing technological advances in EW will allow its forces to jam, disrupt and interfere with NATO communications, radar and other sensor systems, Unmanned Aerial Vehicles (UAVs), and other assets, thus negating advantages conferred on the Alliance by its technological edge.[24] In this conflict, a large number of Russian EW systems appeared and were moved across the porous border with Ukraine, providing an opportunity to experiment with these EW systems. For example, on 13 May 2017, the OSCE Special Monitoring Mission (SMM) observed a Russian-made Orlan-10 UAV flying across the road from Makiivka (12 km northeast of Donetsk) towards Donetsk City. The frequently sighted Orlan-10 functions as part of the Leer-3 EW system.[25] EW was used in the Donbas conflict by all parties. On the separatist side, this covered the broad range of EW operations, from blocking mobile phone signals to targeted jamming of military communications systems and radars. EW usage in the conflict can be categorised as follows:

- EW to target Ukrainian UAS by the jamming controller or GPS signals
- ECM to disrupt electronically fused munitions ranging from artillery to mortars
- disruption of enemy communications: in some parts of the region no communications systems function
- targeting C2: Russian EW assets detect electromagnetic emissions, which can be located and targeted[26]

All in all, I can state, that the Russian BTGs deployed in Eastern Ukraine had a wide range of reconnaissance assets at hand, and they could gather the right information from the Ukrainian forces.

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23 Karber, 'Lessons Learnt', 14.

24 Roger N McDermott, 'Russia's Electronic Warfare Capabilities to 2025', *ICDS*, September 2017, 5.

25 OSCE, 'Latest from the OSCE Special Monitoring Mission to Ukraine (SMM), based on information received as of 19:30, 14 May 2017', Vienna, 15 May 2017.

26 McDermott, 'Russia's Electronic Warfare', 25.

Fires

As I mentioned above, manoeuvres can be conducted not only by troops but with fire also. For the classification of fire in the Russian System see Figure 2.

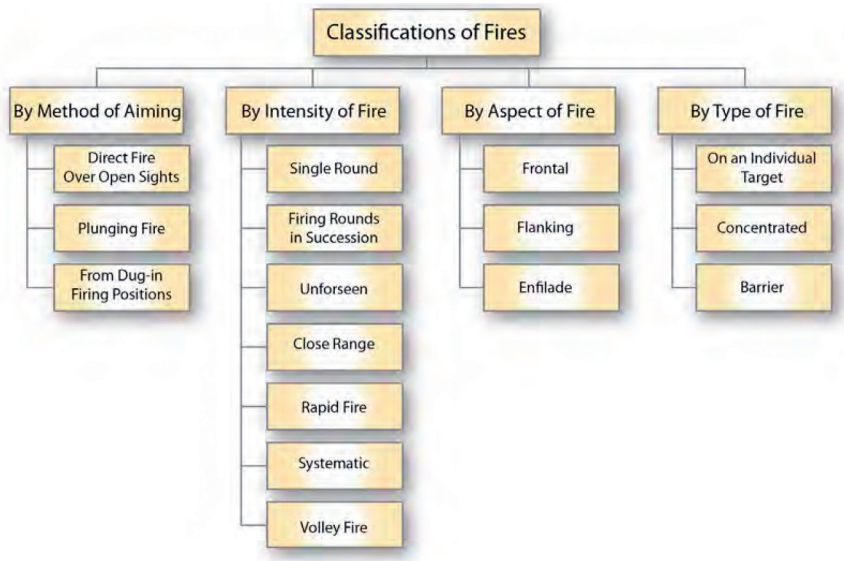

Figure 2: Russian classification of Fire Theory

Source: Grau and Bartles, *The Russian Way of War,* 47.

In the Russo–Ukraine war, the warring parties often preferred to fulfil their task by fire rather than manoeuvre. It has multiple reasons. In the early months of the war, the Ukrainians simply did not have enough well-trained soldiers to execute bold and effective combat manoeuvres. On the other hand, the separatists also did not have the proper training and coordination. Furthermore, the Russian "volunteers" helping their case, did not want to be caught by the Ukrainian forces.

However, in the Ukrainian 2014 summer offensive, the Ukrainians tried to recapture territory and they used bold manoeuvres. But the pro-Russian forces preferred the fires as the main tool to stop the Ukrainian advance. From the 2014 autumn pro-Russian counterattack, which led to the major battles like the Battle of Ilovaysk, the Battle of Debaltseve and the Second Battle of Donetsk Airport, the pro-Russian forces put a great emphasis on fire. Only after the wide-scale use of direct and indirect fires, executed the manoeuvres.

Conducting defensive operations, the system of fire of a battalion consists of massing the various weapons' fires by the senior commander to destroy the enemy. The system of fire must be carefully integrated with the obstacle system. It includes:

- zones of concentrated fire and lines of anti-aircraft gun fire on the approaches of the defence, in front of the forward edge of the defence, on the flanks and throughout the depth of the defence

- anti-tank zones of fire and continuous multi-layered fire by all types of weapons before the FEBA, in the gaps, on the flanks and throughout the depth of the defence to destroy the first wave of tanks and other armoured vehicles of the enemy
- pre-prepared manoeuvres with fire

The system of fire is formed by taking into account:
- the firing capabilities of all types of weapons are involved
- their close integration
- their effect when combined with the engineering obstacles and natural barriers

Readiness of the system of fire is determined by:
- manning of the firing positions
- prepared range cards and firing data
- the presence of missiles and ammunition[27]

This fire system very much resembles the one we can find in the Hungarian and also some Allied countries' field manuals. This is not a surprise, hence the fundamentals of defence and fires are the same all around the world. The main difference is that during the Russo–Ukraine War, the Russian BTGs put an extraordinary great emphasis on fires. This is because – as I mentioned above – they wanted to avoid taking causalities among the regular Russian forces. This is why in many cases the pro-Russian forces used overwhelming firepower (both direct and indirect) when they spotted any signs of military activities among the Ukrainian lines.

In this part, it is unavoidable to talk about the wide use of artillery in this conflict. Data from the Ukraine conflict show that artillery is producing approximately 85% of all casualties on both sides. While the Ukrainians have generally used their artillery with considerable effectiveness in the defence, it is on the Russian side that we see new trends that are important for U.S. and NATO ground forces. The Russians put a great emphasis on MLRS area fires. The dramatic effect of these assets on the lethality of Russian indirect fire cannot be overemphasised. Furthermore, there are signs, that during some specific combat tasks (supporting infiltration, fighting in built-up areas) the pro-Russian forces used their self-propelled artillery pieces firing direct fires. In some cases, the pro-Russian forces used their 2S1 Gvozdika self-propelled howitzers as assault guns to simply blast a hole into the Ukrainian positions.[28]

The principles and the theories of fires are largely the same in the Russian Military than in the Western military culture. Fires, not personnel and systems, are massed to achieve the effect. Fire planning from squad to brigade designates areas of interlocking fire, massed fire, stopping fire and final protective fire (FPF).[29]

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[27] Grau and Bartles, *The Russian Way of War,* 88.
[28] Karber, 'Lessons Learnt', 20.
[29] FM3-21.1, H-16.

Sustainment

There are logistical and maintenance issues because of the wide variety and lifespan of the military equipment used, although the use of Armata chassis will mitigate some of them. One reform that has not been successful was the abolition of some logistics and maintenance units in favour of private contractors. BTGs are not immune to the logistics problems that still plague the Russian military, and BTG commanders still complain about them. There is also reporting that BTGs are augmented by staff at the Army Group and Military District level. Due to the Russian planning process, battalion staffs are quite small by NATO standards. This augmented staff may substitute for the lack of an on-sight higher headquarters (brigade/regiment), but these staff members might also be liaising with the General Staff and advising the unit commander if needed.[30]

Protection

The protection has multiple aspects like armour, engineering works, avoiding fratricide, EW-protection, etc. The first thing that comes to mind is the misbelief that the Russians do not care about losses. It could be true in World War II but definitely was not true in this conflict. The main reason is that the Russian political leadership tried to mimic their scale of intervention in Eastern Ukraine. The best way to do this is avoid losing soldiers and equipment. In order not to lose soldiers and equipment, you have to protect them.

This is why the Russians avoided exposing their forces to the direct effect of the Ukrainians. Of course, the Cold War-era Soviet military equipment (BMP-2, BMD, T-72) did not focus on the protection, but the speed and the firepower. As a result, the Russians used a wide range of direct and indirect fires before their attacks to destroy all the assets that could hurt them. In the time of Ukrainian advance (mainly summer 2014), they carefully moved their forces out of the way of the Ukrainian attacks and they used their superior firepower and the manpower of the local separatists to stop the Ukrainian advance.

In the time of trench warfare, the warring parties constructed sophisticated trenches and fortified defensive areas. The Russians are masters of fortification and camouflage. But in order not to expose the regular Russian forces to the Ukrainians, they withdrew their BTGs from the frontline and the trenches were manned by local separatist militias. But in the era of drones and real-time satellite images, it is not enough to simply pull back the forces. The Russians introduced very effective camouflage measures to hamper Ukrainian reconnaissance, surveillance and intelligence either conventional, electronic or cyber.

However, in spite of all the precautions in a war on this scale, it is unavoidable to have losses. But in the Russo–Ukraine war, we can state that the Russian BTGs put a great emphasis on protection.

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30 Ramm, ‘The Ukraine Test’.

Examples from the battlefield

In this part of the study, I will briefly introduce some battles fought in Eastern Ukraine. In these examples, I will show the characteristics of the employment of the Russian BTG.

The Great Raid – failure of the Russian Mission Command System?

According to the Russian tactics (and also practically every military's tactics since Sun-Tze), the high ground is vital. During the Great Raid (some calls Zabrodski's Raid), on 28 July 2014, the Ukrainian forces stormed the Savur-Mohyla hill. The high ground must not be defended by putting the main forces on them. It is better to defend the approaches while dominating the ground by fire from the flank and rear. It happened like this on 28 July 2014. Hence, the Ukrainian forces successfully stormed and captured the vital hill, they came under constant rocket artillery and heavy machine gun fire, and they had to continue the advance under extremely hostile circumstances. It is only the speed and the surprise factor that helped the Ukrainians to move on. This leads us to the second example.

The Great Raid clearly surprised the pro-Russian forces. It was the longest manoeuvre in modern military history. As I mentioned above, the level of success is still disputed, but the whole performance (i.e. speed, seizing the initiative, effective mission command) of the Ukrainian forces is outstanding. It is a big question why the pro-Russian forces did not stop the manoeuvre. Some say that the higher-level Russian military decision-making has failed to produce the correct orders to the forces in the operational area.[31] In my point of view, the Russian forces were not present in Eastern Ukraine in the necessary number to stop a well-led, well-equipped brigade combat team. The first clear evidence of large Russian forces present in Eastern Ukraine was to be found a month later during the Battle of Ilovaysk.[32] Furthermore, the Russian intelligence early discovered that the Ukrainians did not want to recapture ground, but to liberate and withdraw border security forces trapped in their barracks and to liberate the encircled airport of Luhansk. In my opinion, these reasons (not enough forces present, plus the Ukrainians did not want to hold the ground they recaptured) led the Russians to the conclusion to let the Ukrainians move where they want, they could not seriously hamper the pro-Russian forces in their advance. That can be easily admitted if we see the subsequent battles.

Zelenopillya – example of the effectiveness of Russian indirect fires

In the summer of 2014, as the Ukrainians were successfully conducting their counteroffensive against the separatists' strongholds in the Donbas and tried to drive a wedge between the separatists and their supplier, Russia initiated a series of cross-

[31] Fiore, 'Defeating the Russian Battalion Tactical Group', 8.

[32] Shaun Walker and Oksana Grytsenko, 'Russian soldier: "You're better clueless because the truth is horrible",' *The Guardian*, 03 September 2014.

border artillery strikes against the Ukrainian units. In the space of six weeks, the Russians launched 53 fire strikes at 40 different locations, which decimated the Ukrainian forces. For example, at Zelenopillya, in a combined MLRS fire strike that lasted no more than three minutes, two Ukrainian mechanised battalions were virtually wiped out with the combined effects of top-attack munitions and thermobaric warheads.[33]

The Second Battle for Donetsk Airport – The way of urban warfare in Eastern Ukraine

The international airport of Donetsk was in the centre of the operations multiple times. In late May 2014, the separatists could not take the airport from the Ukrainians. But after the pro-Russian counteroffensive, the capture of the airport became a possibility by the autumn of 2014. I will not describe the events of the battle chronologically, instead, I want to focus on the way the battle was fought.

The airport is in the northeastern part of Donetsk, and it is full of all types of buildings from little shacks to massive, multi-store concrete buildings, hence it provided a classic urban battleground. According to the fundamentals of urban combat, the attacker must have 10 times superiority in terms of combat power. Furthermore, the attacker has to apply a wide scale of fires. In this battle we could see that the pro-Russian forces used the fires extensively. On 28 September 2014, the pro-Russian forces commenced their attack after they have set artillery observation posts near the airport, so they could use MLRS fire effectively. By mid-October, the warring parties reached a stalemate, the Ukrainians did not have the manpower to counterattack, and the pro-Russian forces did not have the power to effectively continue their attack. In this case, both sides used tanks, mortars and MLRS fires to destroy the enemy's strong points. Multiple times the MLRS and self-propelled artillery pieces fired directly at their targets. The culmination of the battle was the moment when the pro-Russian forces realised that they could not capture the old terminal building by a classic infantry assault. This led them to undermine the building and simply blow it up with the Ukrainian defenders inside.[34]

Following the Russian forces conducting urban combat, the conclusion can be drawn that the fires – as a specific way to solve tactical tasks – came even more into focus. It is easily understandable because of two reasons. First, they have tried to avoid causalities for obvious political reasons. Second, it is clearly logical that if the attacker can use massive fires to destroy the enemy, he will use it instead of sending infantry soldiers into the chaos of close-quarter combat.

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[33] Karber, 'Lessons Learnt', 19.

[34] Umer Khan, 'The Battle of Donetsk Airport (2015/16) – The Replay of Grozny with Modern Weapons', January 2020, 4.

Summary

In my study, I have examined the characteristics of the Russian BTG. I can state that the BTGs can be used very effectively. However, they have clear disadvantages originating mainly from the age of the equipment and logistic problems. But the extensive use of effectively organised direct and indirect fires, and the overwhelming use of modern EW assets can balance these disadvantages. In the extreme circumstances of the 21st century's conventional warfare, the fast method of decision-making, the extensive use of fires and bold manoeuvres make the Russian Battalion Tactical Group a formidable fighting force.

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Research Methods for the Study of Refugee Resettlement

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This study tries to integrate different methods for research on refugee resettlement, which denotes the scholarship that intends to compare specific issues in two or more contexts and societies under their diverse socio-cultural settings. The study aims to represent a holistic picture that allows a greater understanding of refugee resettlement and proposes developing a more appropriate and holistic research methodology for refugee studies to do research in state and public administration. Researching the refugee problem has various distinctive noticeable difficulties that scholars must deal with; it also provides a diverse alternative for each stage to pilot the research process. The paper discusses the correlations amid the methodological problems and clarifies the critical decisions that are considered when researching the refugee problem.

Keywords: *research, refugee resettlement, history, comparative study, case study, law and security*

Introduction

The world has experienced a huge flow of human migration and displaced people since World War II. The typical mobility of humans is contingent on the persons' race and rank that contain the economic ability and their choices as well as the admissibility of a country. However, it is different when people have fled due to persecution and/or fear of persecution from their motherland and face the challenges of legal migrants when no one is ready to recognise them as members of their polity that could support them to take a legal flight. The contemporary refugee crisis now appears a global problem. Their resettlement gains attention among the political leaders and international aid agencies for their rights and opportunities, which can support them for a peaceful life. Meanwhile, the number of refugees and displaced people has increased significantly because of climate change, food crises and civil wars in different parts of the world.

As per the latest update from the United Nations High Commissioner for Refugees (UNHCR), the total volume of displaced people is 79.5 million at the end of 2019; 26, 45.7 and 4.2 million are refugees, internally displaced people, asylum seekers, respectively,

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due to persecution, war and conflict and violations of human rights. Only thirty per cent of them are under the mandate of the UNHCR.[2] As reports showed in 2019, about seventy per cent of the global refugees are coming from the following five nations: Afghanistan, Myanmar, Somalia, South Sudan and Syria. It is reported that the most significant part of the refugees (3.7 million) is hosted by Turkey, Pakistan, Germany and Uganda, respectively 1.4, 1.06 and 1.2 million. In contrast, the fourth leading refugee group (1.1 million) from Myanmar is currently hosted by Bangladesh in the world's largest refugee camps. The refugee problem has become a subtle topic in many countries when the countries that cause refugee problems are alleged to be fanatical to a minority on race, religion or language. Refugees face a looming plethora of violations and vulnerabilities that eventually end in a disaster. They have become burdens from socio-political, economic and environmental aspects. The present study focuses on the relationship among the different research methods to design the refugee resettlement research in social science.

The study examines different research methods to configure a footprint of research on refugee resettlement to deal with humanitarian agencies and other state and non-state actors. It endeavours to represent diverse methods in social science research for refugee resettlement. The study also indicates an appropriate research methodology on refugee resettlement considering their socio-cultural settings, political ecology and respect to the existing international and domestic laws. The research is solely based on secondary sources of data and comprised both the primary and secondary studies on research on refugees and other migrants. The research findings indicate a standard guideline to research on refugee resettlement in different political spectrums and reveal the externalities that the scholars have to bear in mind during research on refugee resettlement. It also tries to highlight the trade-off between the researchers and their research environment to focus on the research goals and achieve satisfactory outputs. The review is helpful to reveal the harmonised ideas of individuals for refugee resettlement who synchronised their movements to fabricate services on refugee resettlement.

To keep the objectives and goals in mind, the author suggests various research approaches. It also recommends combining them suitable for respective study when a different system in social science allows us to find a way to gain a broad understanding of diverse facets, narratives and figures of a research problem. The scholarship warrants the results are affected by neither a single methodology nor the dissimilarity resulting from the character of the methodology, other than a result of underlying factors.[3] The study concludes by a claim to cover and manage multidimensional data through research that could perhaps improve the refugee lives and the incentives necessary for refugee resettlement in the future.

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2 UNHCR, 'Figures at a Glance', 2020.

3 R Burke Johnson, Anthony J Onwuegbuzie and Lisa A Turner, 'Toward a Definition of Mixed Methods Research', *Journal of Mixed Methods Research* 1, no 2 (2007), 112–133.

Conceptual framework – Developing a comparative framework

The study intends to operationalise the notions since notions are subjective and the psychological metaphors cannot be quantified. The identification index (as coordination of criteria that replicate the notion) is essential to transform the notions into variables. It is crucial to operationalise the concepts and variables in any research. However, during research with such variables in the field of refugee resettlement, many externalities might bedevil the researchers. The conceptual framework shows how a comparative framework in research on refugee resettlement indicates the independent and dependent variables that might change their resettlement process. Therefore, the researcher needs to identify the variables and categorise them into dependent and independent variables that result in the fundamental research on the resettlement process for the refugees.

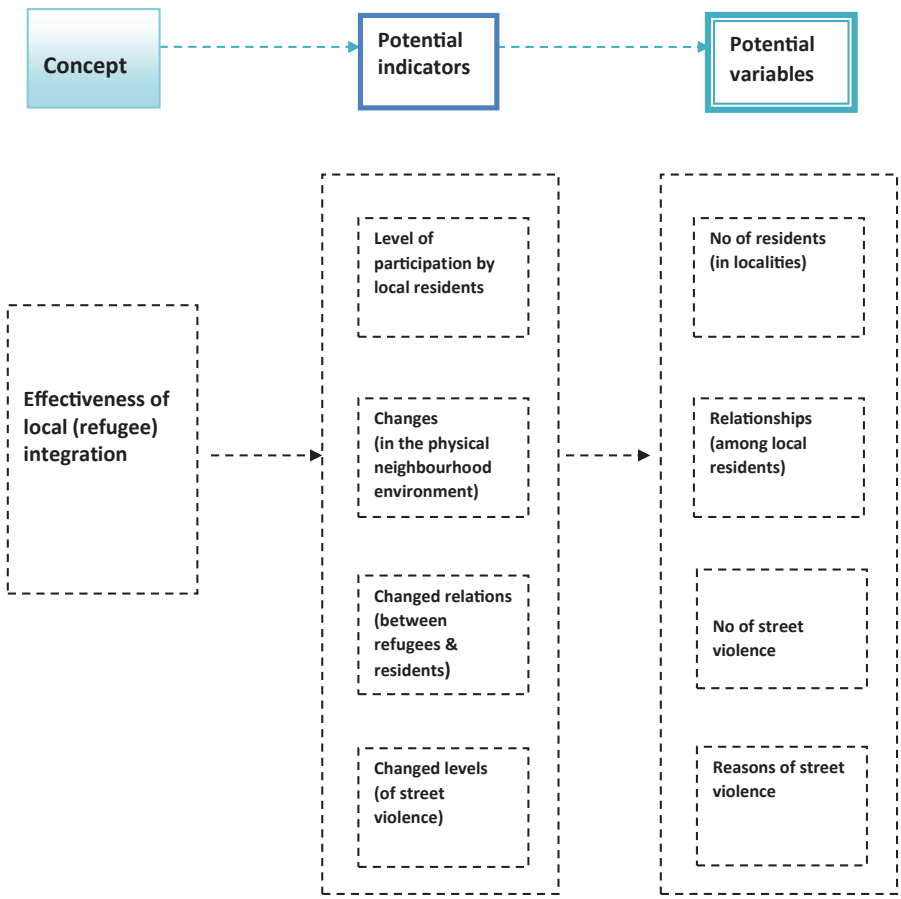

Figure 1: Comparative framework

Source: Compiled by the author.

Historical research method to study refugee resettlement

The studies on refugees are related to history and international law. The historians used the method extensively in Europe and beyond to interpret the former policies and generate future policies on refugee resettlement. Every research requires a technique based on its nature and objectives through which it tries to answer research questions set earlier. Research on refugee resettlement requires a historical approach to identify the root causes of displacement and produce new policies. It can help the resettlement process to take refugees in any country, including European and North American countries. The historical method is significant for principles and practice in refugee research to explore the suitable policies that can be applied to mitigate future crises.

Peter Gatrell rightly pointed out that "refugee history cannot just be about refugees";[4] earlier, the historians mainly concentrated on the human species.[5] Yet, within the regional and international history scholarship, many consider climate change and the environment – and not typically "refugees" – one of the main causes. The history of 'refugees' has changed and shifted its connotation and circumstances from time to time, place to place. As a result, the studies on 'refugees' are not firm and concrete, and refugee people are not a mystery of factual contexts like war and conflict or famine. There is little scope for anyone to escape the earlier history of refugees, as it is the legacy of the past. Therefore, it is essential to identify the 'root' of refugee people to resettle them through research-driven policies. In a nutshell, understanding history is crucial and fundamental for resettlement as it links past to present.

The refugee people are observed and presented differently in the global historiography, from the Jewish Holocaust to the African civil war and famine and from the Arab region to Southeast Asia. The burgeoning refugee literature deals with the refugee formation that caused their removal by force or such force directed to ethnic cleansing and related to genocide studies.[6] Nonetheless, it is also promising when the international actors and their functional architecture change their humanitarian actions from aid to the coordination and categorise the international law that ensures refugees' rights and opportunities based on their historical background.[7] Eventually, all these concentrates on the development of refugee history and comprises all the accumulated experience during their flight from home to the country of asylum and a third country for resettlement. Refugee history also contains the reactions from humanitarian organisations and other non-state actors, including the host country, to personify refugees' experiences not just because they are

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4 Peter Gatrell, 'Refugees – What's wrong with history?', *Journal of Refugee Studies* 30, no 2 (2017), 170–189.

5 Dan Stone, 'Refugees then and now: Memory, history and politics in the long twentieth century: An introduction', *Patterns of Prejudice* 52, no 2–3 (2018), 101–106.

6 Pertti Ahonen, Gustavo Corni, Jerzy Kochanowski, Rainer Schulze, Tamás Stark and Barbara Stelzl-Marx, *People on the Move: Forced Population Movements in Europe in the Second World War and Its Aftermath* (Oxford: Berg, 2008); Matthew Frank and Jessica Reinisch (eds), *Refugees in Europe, 1919–1959: A Forty Years' Crisis* (London: Bloomsbury, 2017).

7 Fiona Reid, Laure Humbert and Sharif Gemie, *Outcast Europe: Refugees and Relief Workers in an Era of Total War 1936–48* (London: Continuum, 2012); Gerald D Cohen, *In War's Wake: Europe's Displaced Persons in the Postwar Order* (New York: Oxford University Press, 2012).

victimised and rescue hunters but they are also contributors.[8] As a result, refugee studies urged for an interdisciplinary and nation-transcending research method when their history is the summation of different times and events and a compulsion to conceptualise their history and significance.[9] Moreover, former refugee studies were directed by sociology, political theory, anthropology and law and "focused on security and border control, citizenship and statelessness, national identity … and the role of NGOs and international organisations such as UNHCR in aiding refugees, creating and maintaining camps, and resettling refugees".[10] However, Philip Marfleet was different who called for the historical study of refugees.[11]

Table 1: Comparative study framework

History of the followings to be considered for refugee studies	Different academic background	Scholars and practitioners
International Law, Geopolitics of Boarders, Human Rights, experience of migration, discourse used to describe refugees, past memory reshapes, recent discussions	Law, Political Science, Philosophy, Cultural Geography and History	Bialasiewicz, Maessen, Goalwin, Gigliotti, Taylor, Ahonen, Pavlovich, Kushner, Stone

Source: Compiled by the author based on Marfleet, 'Refugees and history'.

The methodological problem is common to historians when writing about the past. In addition, refugee, asylum and immigration politics are currently surrounded by the moral and socio-cultural mess that captured historians for being wary in establishing the fact that they attempt to label and investigate. Besides, "historians have been slow to wake up to the crucial insight that emerges from scholarship in the social and political sciences, namely that states make refugees, but that refugees can also make states".[12] The flight of an individual and his migration, even to become a refugee and their sufferings in a new place, is intertwined with several phenomena, i.e. history of a nation, diplomacy, war, persecution, etc. However, these phenomena are not sufficient to constitute the refugee history for a specific group. At the same time, it is also relevant to know and explore the reasons – how and why they become refugees. Further, the scholars need to discover how their movement has shaped their interconnection in hosted and resettled states and how it influences local politics.[13] Equally, the massive upheavals require navigation and comprehension, while legacies are preserved and adapted from the past and transmitted to each generation. Tradition is not concrete, it is flexible; humans can learn, if they want, from past information about the destroyed cultures, they can also observe the paths that

8 Gadi BenEzer and Roger Zetter, 'Searching for Directions: Conceptual and Methodological Challenges in Researching Refugee Journeys', *Journal of Refugee Studies* 28, no 3 (2015), 297–318; Peter Gatrell, *The Making of the Modern Refugee* (Oxford: Oxford University Press, 2013).

9 Stone, 'Refugees then and now'.

10 Ibid.

11 Philip Marfleet, 'Refugees and history: why we must address the past', *Refugee Survey Quarterly* 26, no 3 (2007), 136–148.

12 Gatrell, 'Refugees – What's wrong with history?'

13 Stone, 'Refugees then and now'.

were unfollowed. Indeed, in-depth study on the past with reviewing long-term past/present of humans leads civic attention to the combination of flows and diverse methods of alteration in the history of humankind, containing a whole series of events from revolution to evolution. Refugee people convey an ethnoreligious uniqueness of religious or cultural minority and geographically narrate the people from different parts of the world.[14] They also considered themselves citizens; however, in case of the Rohingya from Myanmar, the government has always declared them illegal immigrants.[15] The government has not recognised them as citizens of Myanmar. They called them "resident foreigners",[16] which made them stateless since independence.

In contrast, others are unable to secure their lives and properties due to civil war and conflict and lose their national identity.[17] That is why scholars, scientists and practitioners from different backgrounds advocate that understanding the refugee movement today and getting to know history is the only way to understand, since the entire narrative is contemporary, while it will help understand the history of refugees and resettlement in the future.

Comparative research method to study refugee resettlement

Refugee resettlement in the 21st century has become a global concern that needs comparative research due to its variability. "Comparative research" denotes a comprehensive term and uses both qualitative and quantitative methods to study a research problem and makes a comparison within two different contexts. It received several designations to redefine its application in social science. The definition appears and becomes more precise with the combination of "cross-national" terminology in "comparative research". Hantrais and Mangen indicate that "cross-national comparative research" is implemented when countries are compared to the same concepts to make generalisations or better understand the phenomena under study.[18]

The scholarship on distinguishing the different types of "comparative research" is needless and not very specific. The concept of "cross-country", "cross-nation", "cross-societal", "cross-cultural", "cross-systemic", "cross-institutional", as well as "trans-national", "trans-societal", "trans-cultural" are applied as synonymous, in general, during comparison at macro-level. It also denotes the distinct types of comparisons by authors, while the distinction differs from one another. Besides, "the confusion reflects the point

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14 A.K.M. Ahsan Ullah, 'Rohingya Crisis in Myanmar: Seeking Justice for the Stateless', *Journal of Contemporary Criminal Justice* 32, no 3 (2016), 285–301; Jacques P Leider, 'Rohingya: The History of a Muslim Identity in Myanmar', *Oxford Research Encyclopedia of Asian History*, May 2018.

15 Eleanor Albert and Lindsay Maizland, 'The Rohingya Crisis', *Council on Foreign Relations*, 23 January 2020.

16 Ullah, 'Rohingya Crisis in Myanmar'.

17 Kazi Fahmida Farzana, *Memories of Burmese Rohingya Refugees: Contested Identity and Belonging* (New York: Palgrave Macmillan, 2017).

18 Linda Hantrais and Steen Mangen (eds), *Cross-national Research Methods in the Social Sciences: Method and Management of Cross-national Social Research* (London: Pinter, 1998).

that national boundaries are different from ethnic, cultural, and social boundaries".[19] For example, applying "cross-national" and "comparative regionalism" in macro-comparison, researchers have identified robust and reliable associations among the quality of development, conflict and governance in social systems. It has also been observed that the fusion of non-violent conflict, democracy with high productivity, and self-sustaining development are imperative for a well-performing social system. So, the main difficulties of using the "comparative method" in any research are the small number of cases and numerous variables; however, these variables are strongly interrelated. The latter is problematic for the comparative method to give an arrangement for the variables to solve.

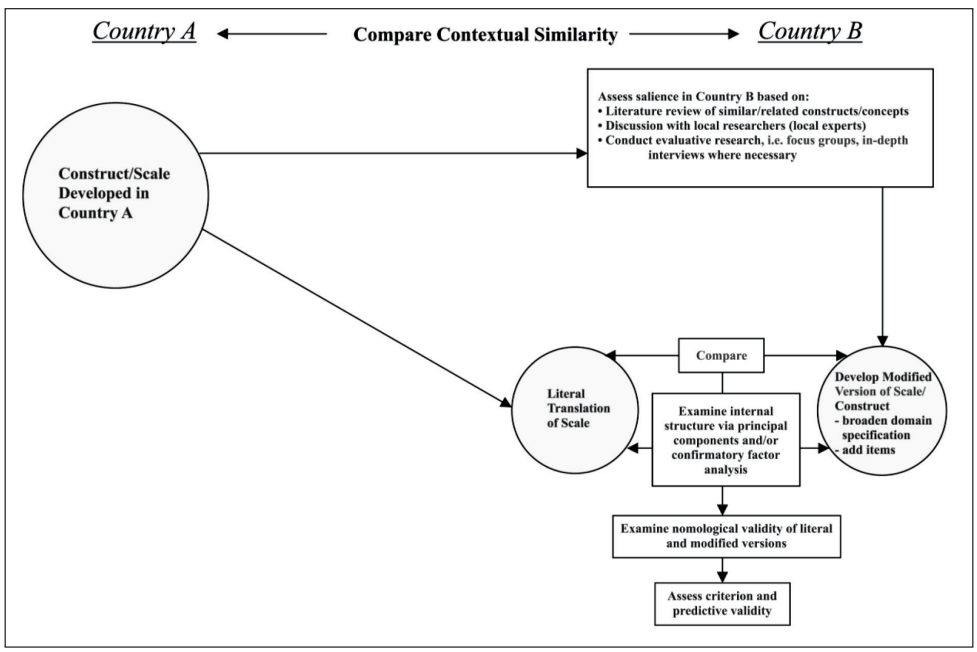

Figure 2: Contextual similarity comparison

Source: Compiled by the author based on Oommen, 'Ethnicity, Immigration and Cultural Pluralism'.

In contrast, the other is familiar to social scientists and can be practised irrespective of specific methods. Before going to an in-depth explanation of precise suggestions to reduce the problem, two widespread comments are directive. First, where possible, one can use the statistical method instead of the weak comparative method. But the comparative approach is sometimes more encouraging than the more simple statistical method and can give more specific results where there is a relentless scarcity of time, money and energy. This comparative method is valid in any research at the first stage to develop the

[19] T Oommen, 'Ethnicity, Immigration and Cultural Pluralism: India and the United States of America', in *Cross-national Research in Sociology,* ed. by Melvin L Kohn (Sage Publications, 1989).

hypothesis carefully; secondly, the hypothesis can be statistically tested where the number of variables is high. Comparative research desires to encourage interdisciplinary research to study a social problem. Typically, this will signify two or more related branches of social science; nonetheless, it should be assumed as a broader perception in social science research.

Comparative politics, from its genesis, works simultaneously as a methodology and branch of political science. Once we decide what to do, comparative politics indicates how to do it. Nevertheless, there is a consensus about the shortage of explicit and implicit awareness in comparative research among the researchers that Sartori (1970) defined as "unconscious thinkers".[20] This method is simple and does not follow rationality and empirical study, so it is not practical and can be misleading.[21] Firstly, "the comparative method is defined here as one of the basic methods – the others being the experimental, statistical, and case study methods of establishing general empirical propositions".[22] Thus, it is not just a relevant term ambiguously denoting the effort of one's interest in research, but also a specific method focusing on cross-sectional research, i.e. institution, society, culture, etc.[23] Secondly, the comparative method is well-defined "as one of the basic scientific methods, not the scientific method", which becomes narrow in its scope in the opinion of Harold D Lasswell. According to him, the scientific method is a comparative one where a "scientific approach to political phenomena and the idea of an independent comparative method seems redundant".[24] Thirdly, the "comparative method" is a way to determine the experimental associations among the variables, not just as a measurement method. Likewise, Sartori has defined them as rational on nominal, ordinal (comparative) and cardinal scales. However, Kalleberg[25] conferred it as the "logic of comparison" and defined the "comparative method" as "a form of measurement", which is ordinal measurement. Finally, it is expected that it will make a significant difference between method and technique. Thus, comparative research is a broad-gauge and wide-ranging method that is not limited but specialised. In this manner, Gunnar Heckscher carefully denotes it as "the method (or at least the procedure) of comparison".[26] However, Walter Goldschmidt[27] chooses the term "comparative approach" because "it lacks the preciseness to call it a method". The "comparative method" could also be understood as a primary method of research, or rather a mere tactical aid to research on refugee resettlement.

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20 Giovanni Sartori, 'Concept Misformation in Comparative Politics', *American Political Science Review* 64, no 4 (1970), 1033–1053.

21 Ibid.

22 Arend Lijphart, 'Typologies of Democratic Systems', *Comparative Political Studies* 1, no 1 (1968), 32–35.

23 Arthur L Kalleberg, 'The Logic of Comparison: A Methodological Note on the Comparative Study of Political Systems', *World Politics*, 19, no 1 (1966), 72; Shmuel N Eisenstadt, 'Social Institutions: Comparative Study', in *International Encyclopedia of the Social Sciences*, vol. 14, ed. by David L Sills (New York: Macmillan & Free Press, 1968), 423.

24 Harold D Lasswell, 'The Future of the Comparative Method', *Comparative Politics* 1, no 1 (1968), 3.

25 Kalleberg, 'The Logic of Comparison'.

26 Gunnar Heckscher, *The Study of Comparative Government and Politics* (London: Allen and Unwin, 1957).

27 Walter Goldschmidt, *Comparative Functionalism: An Essay in Anthropological Theory* (Berkeley: University of California Press, 1966).

Case study for refugee resettlement

The case study method is closely related to the comparative methods. However, particular types of "case studies" in the comparative approach can even be recognised as implicit. The case study comprises the single-site research and authorises the researchers to evidence them with the authenticity of real-life events that can potentially be considered the traditional Chicago School method. It can be helpful in research on refugee resettlement as their case is different while their destinations are more or less the same. To conceptualise and capture the character and connotation of a case study method within the scope of refugee studies in political science, 'one needs to know something of its internal disciplinary organisation',[28] which varies from the other social science branch and country. The case study, in political science, is the most commonly used method of analysis that denotes a variety of meanings and practices that differ from particular methods to a research approach. They who are working on grounding the case study as a "set of methods" – the principal connotation – capture the notion as a precise form of study connecting multi-site scholarships directed to founding the fundamental indications and hypothesis testing. The case study can also be used to investigate any case due to the interest of the case per se or to build a theory. Carter and Osborne[29] found several challenges for refugee resettlement in a new place to study the case of refugee resettlement in Winnipeg, Canada. They recommend that the broader policy and programs can expedite the resettlement process in a new place while their absence yields numerous sufferings for the resettled persons. A case study also reveals the advantages and disadvantages of resettlement of a particular ethnic group in rural or urban settings that can support the policy-makers and politicians in decision making about their resettlement prospects and further steps in the governing process. The addition of "comparative" with "case study" proposes different methodological requirements regarding the project and study objectives through recognising and characterising dependent and independent variables. These studies usually scrutinise the covariation across case data.

In contrast, single case studies ended with a qualitative method, which typically searches for compatibility amid theory and data and searches for 'theory-driven within case expectations'.[30] Besides, single case studies completed by an explanatory method may emerge today as "ethnographic or participant observer studies and often use case material to explore particular theoretical issues".[31] That is why it is crucial for refugee resettlement research when refugees bear ethnic diversity. The method also helps to explore the local responses by the regional government and other stakeholders for strengthening the institutional landscape for further resettlement and sustainability.[32] A case study can

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28 Albert J Mills, Gabrielle Durepos and Elden Wiebe (eds), *Encyclopedia of Case Study Research* (Sage Publications, 2009).

29 Thomas S Carter and John Osborne, 'Housing and Neighbourhood Challenges of Refugee Resettlement in Declining Inner City Neighbourhoods: A Winnipeg Case Study', *Journal of Immigrant & Refugee Studies* 7, no 3 (2009), 308–327.

30 Mills et al., *Encyclopedia of Case Study Research.*

31 Ibid.

32 Huyen Dam and Sarah V Wayland, 'Syrian refugee resettlement: A case study of local response in Hamilton, Ontario', The Canadian Geographer/Le Géographe canadien 63, no 3 (2019), 360–373.

assist both the community leaders and policy-makers in coping with potential challenges and benefits of refugee resettlement[33] when other durable solutions are not possible and available for the refugees. It also indicates an improved support service during integration and broader participation to limit the detrimental effects of the resettlement program in any third country.[34]

Mixed-method in research on refugee resettlement

The study in social science is directed by the challenges, not by the methods, while methods can approach a problem to seek answers and change society.[35] The methods are pivotal in any investigation to focus the research problem and get answers. Refugee resettlement is such a problem that it needs constant analysis and suggestions for practical solutions. Qualitative and quantitative research is essential for social science; however, the nature of the research problems and their objectives demand the research approach to respond to the questions. Combining the qualitative and quantitative research methods has got significant attention nowadays.[36] It is more beneficial as it can originate a metaphor and exemplify triangulation which is crucial to study a social problem like refugee crisis and resettlement. The refugee people are the by-product of various political and socio-economic events of history, and their perspectives are somehow different from the other migrants. That is why the refugee crisis and resettlement require a comprehensive investigation covering a diverse way to examine. These refugee people want justice and a decent life for their future livelihoods, including health, education, food, shelter and economic opportunity with political membership in any country. Likewise, recognising the diversity of refugee phenomena and power differences needs cultural responsiveness and a mechanism to build trust favourable for research on refugees to change their lives and minimise inequality.[37] That is why mixed-method can aid in diverse aspects of refugee resettlement research. It intends to go deep into identifying the influential variables to propose a practical and effective solution for them when international aid agencies have prioritised their crises to develop their livelihoods through research.[38] Many studies followed mixed research methods for research on refugee resettlement and to study their stigma, stress,[39] legal

33 Daniel Gilhooly and Eunbae Lee, 'Rethinking Urban Refugee Resettlement: A Case Study of One Karen Community in Rural Georgia, USA', *International Migration* 55, no 6 (2017), 37–55.

34 Benjamin Harkins, 'Beyond "temporary shelter": A case study of Karen refugee resettlement in St. Paul, Minnesota', *Journal of Immigrant & Refugee Studies* 10, no 2 (2012), 184–203.

35 Donna M Mertens, 'Mixed Methods as Tools for Social Change', *Journal of Mixed Methods Research* 5, no 3 (2011), 195–197.

36 Jessica T DeCuir-Gunby, 'Mixed Methods Research in the Social Sciences', in *Best Practices in Quantitative Methods*, ed. by Jason Osborne (Sage Publications, 2008), 125–136.

37 Abigail LH Kroening et al., 'Developmental Screening of Refugees: A Qualitative Study', *Pediatrics* 138, no 3 (2016).

38 Arati Maleku et al., 'Expanding the transformative explanatory sequential mixed methods design archetype in a cross-cultural context: The polemics of African refugee livelihoods in places of resettlement', *Journal of Mixed Methods Research* 15, no 2 (2021), 212–239.

39 Lisa E Baranik, Carrie S Hurst and Lillian T Eby, 'The stigma of being a refugee: A mixed-method study of refugees' experiences of vocational stress', *Journal of Vocational Behavior* 105 (2018), 116–130.

status, mental health concerning their plight[40] and to make a partnership with the refugee community during their crisis.

Moreover, it enables the researchers to filter the close search for refugee and displaced people, especially women and children, and navigate the gender-sensitive aspects of the research for sustainable solutions with its improved methodological quality and authenticity.[41] Mixed research approaches can also identify the inequalities of different refugees regarding their status and current dwelling.[42] As a result, a hybrid research method empowers the researchers in refugee management policy to comprehend the multidimensional refugee resettlement phenomena to use the social capitals and their effects on their wellbeing. It also supports the researchers to look into an issue from diverse perspectives through different lens for a higher response to a crisis by engaging all stakeholders.[43]

From a methodological point of view, research on refugee resettlement is quite challenging because of its externalities. Sometimes the decision of a body or a person determines the fate of the vast majority of refugee and displaced people who are suffering a perilous life. In addition, different quantitative research methods in refugee resettlement and qualitative research with their varied types are helpful for a practical solution. The following types of qualitative research – Ethnographic Research, Focused Group Discussion (FGD), Key Informants Interview (KII), Delphi Method are crucial to researching refugee resettlement. FGD is essential to encourage the researchers to overview the refugees when they are traumatised and their mental and physical conditions are not satisfactory. It also supports them in building trust and ensuring their safety to identify the actions and effective ways to emancipation and deliver clinical benefits. FGD also plays a role in between quantitative and qualitative methods to link and bridge them to investigate an innovative way to attain a holistic perception of the variables.[44] Key Informants Interview (KII) is another form of qualitative technique[45] that is crucial for several reasons; however, it depends on the research problem and the questions researchers wish to answer. It always follows the instruction to get a response from the professionals, who can provide a clear vision and focus on the specific problem to get a transparent overview of the existing issues and guidelines to overcome.[46] It can also help figure out

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40 Tahereh Ziaian et al., 'Refugee students' psychological wellbeing and experiences in the Australian education system: A mixed-methods investigation', *Australian Psychologist* 53, no 4 (2018), 345–354.

41 John W Creswell, *Research Design, Qualitative, Quantitative and Mixed Method Approaches* (Thousand Oaks: Sage Publications, 2003).

42 Giulia Gherardi et al., 'Asylum seekers and inequalities in healthcare: a mixed-method research in Emilia-Romagna region', *European Journal of Public Health* 30, Supplement 5 (2020).

43 John W Creswell, *Mixed-method Research: Introduction and Application. Handbook of Educational Policy* (Academic Press, 1999), 455–472.

44 Brian Grim, Judy Gromis and Alison H Harmon, 'Focused group interviews as an innovative Quanti-Qualitative Methodology (QQM): Integrating quantitative elements into a qualitative methodology', *The Qualitative Report* 11, no 3 (2006), 516–537.

45 Valerie J Gilchrist, 'Key informant interviews' in *Doing Qualitative Research*, ed. by Benjamin F Crabtree and William M Miller (Sage Publications, 1992).

46 John A Naslund, et al., 'Identifying challenges and recommendations for advancing global mental health implementation research: A key informant study of the National Institute of Mental Health Scale-Up Hubs', *Asian Journal of Psychiatry* 57 (2021).

an actual refugee scenario and their adversities when researchers are not equipped to visit the genuine sufferers at their camps regarding health, education and other rights and opportunities.[47] As a result, it can assess the need for basic support on education, health, employment and permanent resettlement of the refugees. Further, it can reveal the potential challenges and economic crises that are yet to come and essential to navigating the resettlement process.[48] Implementing KII in refugee research is not free of risk and challenges where finding the right key is not easy to represent the various context and perspectives. In addition, it is also challenging for the researchers to make appointments for an interview with demanding and hard-to-reach respondents. Whereas the Delphi method can help to reduce such challenges. However, there is a lack of consensus to allow a group of expert persons to provide their opinion on issues and decisions that are coming up from surveying a panel of experts. All the experts who participate in the opinion session deliver their speeches on every question. The responses can be aggregated after each session or round and shared with the same group. Civil society can be a part of it when they have a significant role in refugee crisis management, as Simsa (2017) found their function effective for refugee crisis management.[49] The resettlement of refugees does not always depend on the refugees' choices and desires; the preferences of the countries receiving and hosting refugees play a leading role in decision-making. The Delphi method can play a significant role in resettling them permanently. The Delphi method "may be characterised as a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem".[50] The crisis of refugees is manifold in terms of policy and programs. This method can redesign policy planning for providing them food, education and health services, employment and many more.

The augmented competitiveness and restructuring of the laws and organisational frameworks related to the global refugee resettlement need all stakeholders to provide a new type of cooperation with others. However, it requires a commanding method to adjust the fast-changing ecology of research in social science and popular practice for anticipatory decision-making to respond to the existing and forthcoming challenges.[51] The mixed-method can be effective and valuable for refugee people when they need health, educational, familial support, and many more from the professional side. There is a lack of adequate policy and programs in the refugee camps due to the existing laws and limited application. As a result, mixed-method can be seen as a forecasting mechanism due to its meaningful use in social science, while it has an unanticipated diversity of other application areas.

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47 Tala Al-Rousan et al., 'Health needs and priorities of Syrian refugees in camps and urban settings in Jordan: perspectives of refugees and health care providers', *East Mediterranean Health Journal* 24, no 3 (2018), 243–253.

48 Kroening et al., 'Developmental Screening of Refugees'.

49 Ruth Simsa, 'Leaving Emergency Management in the Refugee Crisis to Civil Society? The Case of Austria', *Journal of Applied Security Research* 12, no 1 (2017), 78–95.

50 Harold A Linstone and Murray Turoff (eds), *The Delphi Method. Techniques and Applications* (MA: Addison-Wesley, 1975).

51 Jon Landeta, 'Current validity of the Delphi method in social sciences', *Technological Forecasting and Social Change* 73, no 5 (2006), 467–482.

Legal and security aspects of refugee resettlement

Refugee resettlement demands the consideration of security and legal issues related to the international human rights of the refugees. The legal status of refugees is applicable when they fail to protect themselves as a community and no longer have chances to restore national security. Besides, they are vulnerable because their liberties are jeopardised, but more fundamentally, they are no longer capable of reorganising themselves as a community where they belonged and enjoyed their human rights.[52] Their lives become hazardous and rudimentary marginalised, differing from others at severe risks. The Global Compact for Safe, Orderly and Regular Migration (GCM) is the first-ever international treaty primed in the sponsorship of the United Nations (UN) to protect all dimensions of global migration holistically and comprehensively. The formation of the objectives of GCM is grounded on the Universal Declaration of Human Rights (UDHR) and core International Human Rights Law (IHL) instruments to uplift the principles of non-regression and non-discrimination. GCM specified twenty-three objectives that bolstered the state for specific commitments and actions. It also helps nation states to seek to address the existing and upcoming challenges related to migration. J Kevin Appleby (2021) found GCM as a blueprint that allows the nations to manage migration flows with multilateral cooperation with other countries with burden-sharing. He considers it the most effective way to manage migration in a humanistic manner, maintain the rule of law[53] and strengthen the migration policies.[54] However, many uncertainties are there on negotiation within the states for managing migrants worldwide as Pauline Melin (2019) observed GCM as a fiasco for European cooperation on the global scene.[55] It is also necessary to bear in mind the law of hosting and receiving third countries during the resettlement of refugees.

In contrast, international laws are the major ones that can guarantee the human rights of the refugees in their distressed plight to a destination country where there is no option for repatriation and local integration. International laws have always been obsessed with human rights and protection, while national governments focus on their national interests. Political viewpoints consider refugees a term that contains a broader range of benchmarks where these benchmarks indicate the various prerogatives that yield pertinent rights and benefits.[56] Besides, these refugees are defined as 'involuntary international migrants' from a sociological viewpoint.[57] It is also said that international and domestic laws sometimes have an adverse effect on the refugees seeking asylum due to their thinness and rigidity.

Moreover, few countries have experienced domestic agitations by the refugee people that caused a threat to their homeland security. The refugee people also try to avoid the formal administrative ways during their journey, augmenting the security concern

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52 Jacques Vernant, *The Refugee in the Post-War World* (New Haven: Yale University Press, 1953).

53 J Kevin Appleby, 'Implementation of the Global Compact on Safe, Orderly, and Regular Migration: A Whole-of-Society Approach', *Journal on Migration and Human Security* 8, no 2 (2020), 214–229.

54 Madeline Garlick and Claire Inder, 'Protection of refugees and migrants in the era of the global compacts: Ensuring support and avoiding gaps', *Interventions* 23, no 2 (2021), 207–226.

55 Pauline Melin, 'The Global Compact for Migration: Lessons for the Unity of EU Representation', *European Journal of Migration and Law* 21, no 2 (2019), 194–214.

56 Guy S Goodwin-Gill and Jane McAdam, *The Refugee in International Law* (Oxford University Press, 2007).

57 Tom Kuhlman, 'Towards a Definition of Refugees', Refugee Studies Centre, 1991, 6.

in other parts of the world. The 1951 Convention Relating to the Status of Refugees (CSCR) mentioned the definition and its benefits; however, primarily, the convention had geographical limitations that had been excluded by its protocol 1961. Many third world countries are still not a part of these conventions and protocols, but they are partly members of the different international covenants and conventions that encourage them to govern and manage the refugee crisis. However, the first international document, the Universal Declaration of Human Rights 1948 article 14(1), declared that "everyone has the right to seek and to enjoy in others countries asylum from persecution".[58] However, the actual definition and recognition do not fully ensure their rights and opportunities. The United Nations High Commissioner for Refugees (UNHCR) is the international body to handle all aspects related to refugees. It is responsible for the status and recognition of refugees and their protection in terms of food, safety and security with other human rights, i.e. education, health and economic opportunity. It is also true that the international body has suffered since its genesis and a re-examining of its definition, laws and policies related to refugees is necessary due to the emerging global concern. The coordination of UNHCR with other international organisations like IOM, UNDP and the Red Cross can bolster the resettlement process in any part. The host and refugee receiving third countries' constitutional provisions, judiciary and state policy significantly impact the resettlement process. Many are obsolete and refuse the 1951 Convention and Protocol that inspire and authorise them to reject refugees and resettle in their lands. As a result, the research on refugee resettlement has to combine and consider all aspects of international laws and the countries' security.

The traditional concept of security was narrow and military centred, but nowadays, this concept is involved with other non-military, socio-economic and global crises, including migration. Migration and refugee people is not only a concern for a specific ministry of any country or head of state or ministry of defence or security, it became a part of international politics. The very beginning of the 21st century and the incidence of 11 September 2001 reshaped the global refugee politics and redefined the inter-governmental relations due to the new dimensions of the crises and needs. Likely, the refugee phenomenon is diced by global politics and a new enigma for countries.[59] However, it is quite different from the cold war era and the involvement of international non-state actors (i.e. UNHCR) in restructuring international refugee protection and security is also significant.[60] At the same time, it is also pertinent that these people are recognised as a source of dilemma and insecurity, becoming a threat to the host country.[61] Many studies on refugees found them a threat to internal and human security.[62] Refugee camps are becoming substantially challenging because of organised criminal groups in

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58 United Nations, 'Universal Declaration of Human Rights', 10 December 1948.

59 Benjamin Muller, 'Globalization, Security, Paradox: Towards a Refugee Biopolitics', *Refuge: Canada's Journal on Refugees* 22, no 1 (2004), 49–57.

60 Anne Hammerstad, 'Whose security? UNHCR, refugee protection and state security after the Cold War', *Security Dialogue* 31, no 4 (2000), 391–403.

61 Edward Mogire, *Victims as Security Threats: Refugee Impact on Host State Security in Africa* (Routledge, 2016).

62 Gil Loescher and James Milner, *Protracted Refugee Situations: Domestic and International Security Implications* (Routledge, 2013).

the refugee camps and their breeding there. Besides, ensuring the security of massive numbers of displaced refugee people – sometimes abode in an informal setting – denotes a different while frightening situation.[63] The Europeanisation of refugee policies considers multidimensional perspectives during policy formulation. However, these are not always mutually exhaustive which reversely creates anxiety.[64] That is why studies on refugee resettlement need to consider a holistic approach to resettle the refugees. The international rejoinders have demonstrated the insufficiencies of the current situation while UNHCR is playing as a leading actor for security from the past conflict-induced humanitarian support worldwide. The recent example of the European refugee crisis and security due to the flow of refugees from the Baltic region and others from different ethnic and religious groups creates threats. Besides, restrictive European policies of migration and increased human trafficking are inter-connected as both have impacted one another. While the absence of protection policies for refuges in international affairs is rather ambitious than practical.[65] However, refugees are a burden for the host country from economic, social and environmental perspectives. For this reason, a significant flow of resources as humanitarian assistance is needed that can be helpful for those who are struggling for state-building to manage such a crisis.

Conclusions

The research on refugee resettlement is not easy to implement in the 21st century when influenced by many historical, socio-economic and global political factors. Besides, studies on refugee resettlement have had undesirable upshots and choices not discussed sufficiently. Countries can no longer decide alone on any issue that somehow influences the interests of others in recent times. In addition, it is also influenced by the legal and procedural framework for refugee protection. The problem is also related to other aspects of the country, region and different politico-economic situations where the refugees live. It is also crucial for the promises of their rights and opportunities with their lawful status as a refugee. The global legal framework helps the country, which is experiencing a refugee crisis, identify the conventional protection for the refugee under the various laws and protocols related to the refugees.

Moreover, research on refugee resettlement is challenging and recognised as such by several previous research and linked with the resettled refugees, specifically women and children. The linguistic barriers and cultural aspects are also crucial in directing research that deals with the refugees while it needs continuous modification to attain the research objectives. Following various methods in research on refugees help the researchers to allow them to participate in the research program by building rapport and trust. It also

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63 Benedetta Berti, 'The Syrian refugee crisis: Regional and human security implications', *Strategic Assessment* 17, no 4 (2015), 41–53.

64 Sandra Lavenex, *Revival: The Europeanisation of Refugee Policies (2001): Between Human Rights and Internal Security* (Routledge, 2017).

65 Aramide Odutayo, 'Human security and the international refugee crisis', *Journal of Global Ethics* 12, no 3 (2016), 365–379.

creates a pleasant atmosphere both for the research participants and the researchers; however, it is not equally applicable to all the contexts of refugee resettlement research.[66]

Refugee resettlement research is a universal one with the crucial issue of methodology, moral challenges and ethics. Scholars have to confront the problems in performing their study with individuals in cross-cultural realms for refugee resettlement. Although there is an essence for more and more cross-national studies in social science, it becomes challenging and problematic continuously. Every stage in refugee resettlement research, a case study or the cross-national comparison holds a distinct variety of challenges that scientists have to address and handle appropriately. To address each of the challenges would generate difficulties in case study research.

Consequently, it is indispensable to understand how the challenges are influencing each other. This study endeavours to incorporate some varied and fundamental topics in research on refugee resettlement in cross-national and cross-cultural comparison. It also offers a holistic portrait that allows greater insight into this field.

Furthermore, it is essential to recognise the variability of alternatives upon piloting every stage of the research process. It encourages scholars and policy-makers to re-evaluate quoting information and identify best practices aimed at similar programs. It will also simplify the reflection of appropriate interventions and enhance the understanding of the behaviours of refugees for their future resettlement.

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[66] Rima R Habib, 'Ethical, methodological, and contextual challenges in research in conflict settings: the case of Syrian refugee children in Lebanon', *Conflict and Health* 13, no 1 (2019), 1–7.

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Hungary's Energy and Water Security Countermeasures as Answers to the Challenges of Global Climate Change

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Weather extremities became more significant in Central Europe from the beginning of the 21st century. More frequent and severe droughts, floods, precipitations, storms, extreme high (or low) temperatures are occurring nowadays. It has become important also for Hungary to have proper legal and scientific background to fight against these phenomena. In recent years, several legal and technical regulations were born in Hungary as strategic answers for these challenges. The goal is to ease the consequences and adapt to the changes as much as possible. The authors selected some key areas and their interactions as the energy sector, water management and security issues. After describing Hungary's situation, related environment and the history of recent years' efforts in these areas, they summarise the responses and probable benefits of the Hungarian countermeasures as a possible positive example for answering the challenges of climate change.

Keywords: *climate change, low carbon, energy strategy, water management, agriculture, security*

Introduction

The new National Security Strategy of Hungary was introduced on 21 April 2020.[4] Comparing with its predecessors, this document puts much more emphasis on the issues of energy and energy security and in connection with these, global climate change as the cause of some related challenges. The preface of the document explains its own necessity with the recent changes of security environment, and among others, it appraises the speed up of the global climate change and the depletion of natural resources. Concerning fundamental values, the Strategy defines security in a broader sense, widening the traditional military security with political, economic, social, environmental, medical,

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4 Government Resolution 1163/2020, 'Hungary's National Security Strategy', *Magyar Közlöny*, 21 April 2020.

technological, information and cyber concerns. In the part of the nation's vision for the future, it visualises the key for Hungary's safety in the realisation of sustainable development.

The World Summit on Sustainable Development (WSSD), held in Johannesburg, South Africa in 2002 created the so-called WEHAB program (Water and sanitation – Energy – Health and environment – Agriculture – Biodiversity) that identified the problematic areas. The final document of the conference stated that, among others, the proper handling of problems emanating from water scarcity are needed and immediate measures are necessary to achieve sustainable water consumption.[5]

Practice of sustainable water consumption should provide, besides the fulfilment of communal needs, the subsistence of ground water levels as a fundamental requirement for the existence of connected ecosystems and economic activities (agriculture). During the defence of the quantity and quality of our water supplies, emphasised aims are the achievement of water saving and prevention of water contamination. In order to achieve these, important actions are: waste water purification and damage relieve, that is, the collection of the maximum possible amount of waste water that formed from drinking water, its purification in conformity with the regulations and finally their release back to surface waters with strict supervision.[6]

Such factors, as the increase of population, urbanisation, economic and social conditions play a more important role worldwide concerning water management than climate change. But in economically developed regions, where the number of population and water consumption per capita is more or less constant, climate change will affect water problems more intensively.[7]

Climate change and energy security

The majority of Hungary's energy supply comes from abroad, and the ratio of the import of fossil energy sources is extremely high, so when we are talking about energy security, the safety of the energy supply chain comes into the focus because of the country's foreign energy dependence. In this situation, energy security means the capability of gaining proper amount of energy continuously, calmly and on a reasonable price.

Hungary's greenhouse gas emissions have been changed in several stages since 1990. In the beginning of the 1990s, the cessation of the former socialist heavy industry (responsible for the majority of the emission), transformation of the structure of the economy and the decreasing output of agriculture together resulted a drastic decrease in greenhouse gas emission. In the next period, the change from coal to natural gas in the

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5 Tamás Berek, 'A vízbiztonsági tervezés szerepe a fenntartható vízgazdálkodásban' [The role of water security planning in sustainable water management], *Műszaki Katonai Közlöny* 26, no 2 (2016), 35.

6 Zsolt Andrási and Lajos Franczen (eds.), *A fenntartható fejlődés indikátorai Magyarországon, 2014* [Indicators of sustainable development in Hungary, 2014] (Hungarian Central Statistical Office, 2015), 34.

7 Mária Papp et al., *Távlati vízigények elemzése – Ivóvízfogyasztás/ivóvízigények megállapítása és előre becslésük Magyarországon* [Analysis of perspective water demands – Determination of drinking water consumption and demand in Hungary] (Central Water and Environmental Directorate, 2007), 84.

industry and the efficiency increase conserved this favorable process till nowadays while the economy still could grow. The world economy crisis of 2008 had a huge negative effect also on the Hungarian economy (almost 9%) resulting a further decrease in the emission. Concerning the effects of climate change, Hungary is one of the most vulnerable countries in Europe. To avert negative natural, social and economic consequences of climate change, the tasks of adaptation and preparedness especially in the areas of water management, security of agricultural yield, protection of our natural values and human health, even in the short term are built-in to our political planning and economic decisions. Tasks of domestic decarbonisation and climate adaptation is completed with a climate approach shaping program. These aims show the commitment of the Hungarian Government to create a more secure environment putting the emphasis on the wider use of renewable energy sources with "low carbon" profile of the economy and decrease of greenhouse gas emission. Nature conservation and the safety of our environmental resources also become of paramount importance.

The majority of the released greenhouse gases is related to the energy production and consumption (burning of fossil energy sources). This means, on the one hand, electric energy production and heat production (or cooling), on the other hand, fuel consumption in transportation. In addition, the so-called "fugitive emission" in close connection with energy production, which means the seeping methane gas during its transportation. The most important emitter within the energy sector is electricity production with 30%, then the consumptions of service industries, households and agriculture with 29% and transportation with 28%. The following table (Table 1) contains the energy production and consumption values from different sources of the country for the recent years.

Table 1: Hungary's energy production and consumption from renewables in the recent years

Energy sources (GWh)	**Year 2014**	**Year 2015**	**Year 2016**	**Year 2017**	**Year 2018**
Nuclear	15,649	15,834	16,054	16,098	15,733
Coal and coal products	6,114	5,908	5,758	5,098	4,834
Natural gas	4,240	5,108	6,479	7,838	7,234
Crude oil	76	77	63	85	90
Biomass	1,702	1,660	1,493	1,646	1,799
Biogas	287	293	333	348	331
Renewable communal waste	137	208	245	160	162
Water	301	234	259	220	222
Wind	657	693	684	758	607
Sun	67	141	244	349	620
Geothermal	0	0	0	1	12
Other	173	204	290	284	360
Altogether	29,403	30,360	31,902	32,885	32,004

Primary consumption from renewables (TJ)	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018
Solid biomass	98,388	103,914	101,026	99,547	90,062
Biogas	3,323	3,335	3,708	4,141	3,850
Renewable communal waste	2,249	3,123	3,482	2,766	2,907
Biofuel	7,890	7,332	7,835	6,929	8,144
Water	1,084	842	932	792	799
Wind	2,365	2,495	2,462	2,729	2,185
Sun	647	956	1,346	1,749	2,759

Source: Compiled by the authors based on the Office of the Hungarian Energey and Public Utility Regulatory Authority, *Országos éves energiamérleg, 2020* [Annual national energy balance, 2020].

An important milestone was the creation of the National Energy and Climate Plan (its background was pro0vided with the 2018/1999/EU decree of the European Parliament and Council). Its working plan was created and handed to the Committee in January 2019. The aim was that the Plan should be in accordance with the NÉS-2[8] and the First Climate Change Action Plan,[9] should be climate politically relevant, and with the help of it, a complex and diversified service pack for energy policy solutions should be created for the different consumer sectors.

The National Energy and Climate Plan[10] contains definite objectives for both the emission reduction of greenhouse gases and increased use of renewable energy sources. Emission of greenhouse gases (GHG) should be reduced with at least 40% for 2030 (in comparison with the emission values in 1990). It means that the total GHG emission value should not exceed 56.28 million tons of CO_2 equivalent. The emission in 2017 was 64.44 million tons of CO_2, so the task is a further 8.2 million tons of cutting. In order to do so, the followings are necessary:

- Termination of the traditional coal-burning in power plants and the reduction of GHG emission to 7.30 million tons of CO_2 equivalent in energy industry.
- Maximalisation of GHG emission to 15.66 million tons of CO_2 equivalent in transportation with the limitation and reversal of a presently heavily increasing trend.
- Reduction of GHG emission of buildings to 8.07 million tons of CO_2 equivalent.
- Concerning industry, our goal is that the GHG emission may grow to a maximum of 11.37 million tons of CO_2 equivalent. Within this, despite of its growing, the industrial energy sector's emission should remain under 5.05 million tons, while the process industry's value under 6.32 million tons of CO_2 equivalent.

[8] Ministry of National Development, *A 2017–2030 időszakra vonatkozó, 2050-ig tartó időszakra is kitekintést nyújtó második Nemzeti Éghajlatváltozási Stratégia* [Second National Climate Change Strategy 2017–2030, covering the period up to 2050, (NÉS-2)].

[9] Ministry of Innovation and Technology, *A 2020 végéig tartó Első Éghajlatváltozási Cselekvési Terv* [The First Climate Change Action Plan until the end of 2020], 4.

[10] Ministry of Innovation and Technology, *Magyarország Nemzeti Energia- és Klímaterve (tervezet)* [Hungary's National Energy and Climate Plan (draft)], 2018.

- In the agriculture, the increase of the GHG emission should have a maximum of 9.28 million tons of CO_2 equivalent, with an origin of 1.59 million tons of energetic and 7.69 million tons of non-energetic emission.
- In the waste management sector our goal is to reduce the total GHG emission to a maximum of 2.97 million tons of CO_2 equivalent.
- The aim in the rest of the sectors is to limit the GHG emission to a maximum of 1.63 million tons of CO_2 equivalent.[11]

Concerning renewable energy sources, Hungary's aim is the increase of their use up to 20% until 2030. In 2018, the ratio of the renewable sources in electric energy production was 8.3% and in the heating and cooling energy consumption was 18.1%.

The development of the photovoltaic systems appears as an important element in the national plan with the aim that the 700 MW built-in capacity from 2018 should grow up to 3,000 MW to 2022–2023. Cost forecasts for this technology indicate such consequent price reduction that capacity increase can predictably run with the same dynamics until 2030. Besides the increase of the percentage of solar cell systems, also important purposes are the spreading of electricity production with geothermic sources and the electric utilisation of biological materials produced on site in a sustainable way.[12]

In recent years, serious electric power-cuts raised the attention to the vulnerability of the energy sector. Climate change affects all the critical infrastructures but to a different extent. The energy sector is in contact with almost all the others, and highly depends on other critical infrastructures, so it has a special situation. Decrease in volume or efficiency of energy production can cause serious consequences in a very short term for all the national economy.[13]

The National Energy Strategy aims the evaluation of the "nuclear–coal–green" scenario, which rests on a balanced, varied fuel and technology structure containing all types of power plants. The primary aim for the capacity development is the increase of the ratio of renewable energy sources with the maintainance of the present production values with nuclear and coal based power plants. In order to achieve this, NÉS-2 describes short and mid-term action directives.

The short term action directive is the stimulation of the use of renewable energy sources, and for its optimisation with the transportation costs' reduction, the creation of local energy self-sufficiency capabilities. In order to this, not only the technical and economic

11 Ibid. 38.
12 Ibid. 22.
13 Tamás Berek, ' Adaptációs lehetőségek az éghajlatváltozás következményeihez a biztonságtechnikában a közszolgálat területén' [Adaptation possibilities to the consequences of climate change in the field of security technology in public service], in *Adaptációs lehetőségek az éghajlatváltozás következményeihez a közszolgálat területén* [Adaptation possibilities to the effects of global climate change in the public service area], ed. by László Földi and Hajnalka Hegedűs (Budapest: National University of Public Service, 2019), 645.

conditions should be created, but forming of the local regulations is also necessary with the involvement of local governments.[14]

Because of the increasing frequency and power of the meteorological extremities as consequences of global climate change, the mid-term action directive is the development of flexibility and resiliency of the energy system as the increase of peak consumptions will predictably be growing. Development of network elements will be necessary as interconnectors and electric energy storage technologies together with financial and technological measures on the consumer side.[15]

Water management – water security

Besides the territorial and timely changes of water demand, the quantitative and more importantly qualitative changes of water bases will dominantly affect the possibilities of their fulfilment.[16] For this reason, besides the necessary infrastructural developments, the long-term target of the Action Plan is the forming of a nationwide social approach. Its elements are the followings:

- evaluation of conditions for a comprehensive drinking water network reconstruction program executed after 2020
- preparations for new legal rules for the newly constructed buildings for obligatory creation of built-in rainwater collecting installation
- researches for development of sanitary rules for application of non-utility and alternative drinking water sources (e.g. rainwater)[17]

More intense droughts increase water demand and at the same time limit water uses especially irrigation activities. The task is to develop more effective irrigation technologies and increase the water retention and water storage capacities of our country and provide adequate protection to our water supplies.

According to the prognoses, we should face more extreme precipitations in the future resulting sometimes in serious floods, sometimes in longer periods of droughts. The task seems to be very simple: save and store the extreme surplus water in rainy periods for the time when there will be no precipitation for months; but putting this simple thesis into practice means a lot of research, planning, engineering work, investment and constructions to work out. In 2003, the Hungarian Government accepted the so-called "Improved Vásárhelyi Plan" on the River Tisza in order to create a better defence system against floods and also provide water storage capacities for the dry periods.[18] But not all

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14 Ministry of National Development, *A 2017–2030 időszakra vonatkozó, 2050-ig tartó időszakra is kitekintést nyújtó második Nemzeti Éghajlatváltozási Stratégia* [Second National Climate Change Strategy 2017–2030, covering the period up to 2050, (NÉS-2)].

15 Ibid.

16 Papp et al., *Távlati vízigények elemzése.*

17 Ministry of Innovation and Technology, *A 2020 végéig tartó Első Éghajlatváltozási Cselekvési Terv* [The First Climate Change Action Plan until the end of 2020], 39.

18 Ministry of the Interior, General Water Directorate, *A Vásárhelyi Terv Továbbfejlesztése* [Improved Vásárhelyi Plan], 2020.

the Hungarian rivers provide ideal circumstances for such developments. For example, the River Danube, as the largest river of the country, has such a high runoff that similar solution cannot be implemented for flood protection.

Another special problem emerged recently in our urban areas. As a consequence of climate change, extreme precipitation events also became more frequent and more intense there. During extreme rainfalls, the amount of water on streets exceeds the capacity of sewage systems, and city traffic can be blocked for hours. Water usually causes damages in cars and in buildings and local fire brigades have a lot of extra pumping work for days. Local waste water treatment plants can be overloaded if they use open air installations, and sometimes waste water surplus can flow into the rivers or lakes without purification.

Our water specialists are seeking for the solution with modifying sewage systems or enlarging or using existing city parks as green surfaces which can mitigate the effect on paved road surfaces.

Water management in agriculture

Effects of climate change appear differentially in time and space and can cause different damages in the agriculture depending on natural, land-use and agrotechnical features. In Hungary, the majority of environmental damages are emanating from droughts, followed by ice and water damages. Taking into consideration that as consequences of climate change the rise of summer average temperatures are expected together with the decreasing amount of summer precipitation, it can be stated that drought will be definitely the greatest challenge for our agriculture in the future.[19]

This can cause problems especially in areas where agricultural lands cannot be irrigated from surface waters and at the same time subsurface waters are difficult to reach or the amount of their demand and consumption exceeds the rate of their natural replenishment.

It can be stated that the greatest challenge for agriculture caused by climate change is the prognosed decreasing amount of precipitation in the growing season. For this reason, the main objective of the Climate Change Action Plan was the expansion of agricultural irrigation vindicating sustainable environmental and climate protection aspects in order to adapt to the drier climate. This plan contains the evaluation of the development's casemaps and as a part of it, the formation and operation of Operative Drought and Water Scarcity Management System's monitoring stations network.

In order to take appropriate steps to answer the challenges of climate change and water scarcity, it is necessary to survey and evaluate present conditions. The key aspects during the evaluation of economic values and capacities of our surface and subsurface waters is the assurance of a proper volume of surface waters and the expedience of waters providing agricultural water use.

In the future, some plant species can be emerged in the foreground, for which the changes in the Hungarian climate are beneficial, such as tomato, paprika, cucumber,

[19] László Földi and László Halász, 'Investigation of climate vulnerability of domestic natural and artificial ecosystems', *Hadmérnök* 14, no 2 (2019), 173.

melon, cherry, apple, plum and walnut. In case of wheat or corn climate is well known for the lifetime of the plant, since it is a few months, only. But we do not know, what kind of climate scenario will be emerging in 20–40 years. It means a special uncertainty in planting a forest or fruit trees since during the lifetime of these species climate change can modify the local circumstances thus becoming inadequate for them. It can cause problems in the next decades, yields or logging masses can lag behind expectations resulting financial and other losses.

Conclusion

Concerning sustainability, the use of renewable energy sources seems to be promising, and the zero GHG emission of nuclear power plants made them already popular worldwide (despite of their risk of nuclear disaster). They can play important roles in easing consequences of climate change, but at the same time, climate change itself has its own effects on these technologies.

According to estimations, our potential renewable energy capabilities at present exceed the total energy demand. But climate change will exercise an influence on the availability of renewable sources, and the extent of the changes cannot be foreseen these days. The utilisation of sun energy will be affected with the predictably increasing global radiation and the change of clouding. The use of water energy will depend on the future runoff of our rivers and wind energy will be affected by the changes in wind speeds. The future of agricultural energy sources are extremely uncertain. Future yields and of course prices of these energy sources' raw materials (as corn, rape, straw or firewood) are extremely dependant on the future tendencies of climate change which are not known exactly today.[20]

For this reason, the Climate Change Action Plan contains the evaluation of electric energy transfer and distribution system with the consideration of the possible long-term effects of climate change with special regard to guarantee the safety of energy supply.

Within all the renewables, the utilisation of sun energy is the most important, but all the others contain a lot of further potential capabilities. But a lot of obstacles interfere with the spread of the utilisation of these energy forms: absence of social acceptance, integration into the existing network, infrastructural and economic conditions. Most of the renewables highly depend on the climate, so its change can modify their utilisation possibilities (sun and biomass energies are the most affected).[21]

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[20] János Ősz and Csilla Kaszás, ' A megújuló energiaforrások hazai hasznosításának lehetőségei és korlátai' [Possibilities and limitations of the utilisation of renewable energy sources in Hungary], in *Környezettudatos energiatermelés és -felhasználás* [Environmentally conscious energy production and use], ed. by Valéria Szabó and István Fazekas [Debrecen: MTA DAB Megújuló Energetikai Munkabizottsága, 2011].

[21] János Mika and Ádám Kertész, 'A klímaváltozás és az energiaszektor kölcsönhatásai' [Interactions of climate change and the energy sector], in *Környezettudatos energiatermelés és -felhasználás* [Environmentally conscious energy production and use], ed. by Valéria Szabó and István Fazekas (Debrecen: MTA DAB Megújuló Energetikai Munkabizottsága, 2011).

Even now, within the frames of Hungary's new National Energy Strategy, the resiliency of our energy system is under investigation. Within the process, the key points are the followings:

- integration of the production with renewables into the system
- development of additional electric energy connections and strengthening of market integration in order to improve the operation and resiliency of the national energy system
- promotion and facilitation of consumer side counter measures
- better utilisation of control capabilities on the distribution networks
- improvement of technical and regulatory conditions to be able to use innovative technologies such as electric energy storage within the system
- spreading of digitalisation and smart devices[22]

To improve climate resilience of drinking water systems, a risk management part connecting to the extreme meteorological phenomena is needed into the drinking water security plans in the future. The drinking water security plans contain a comprehensive risk assessment and risk analysis about the whole water supply system from water collection to the consumer's tap. Because of climate change, negative events are predictable concerning the elements of the system, so as part of the risk assessment we should be prepared with adequate prevention and countermeasures. The Climate Change Action Plan provides a new methodology with the aim of modifying water security plans to handle extreme weather events more effectively. The drinking water security plan should contain risk analysis, risk assessment and risk management, control measures, description of the monitoring system with supplement about repairing and predicting activities and proper intervention plan plus emergency and disaster plans if necessary guiding through the whole water utility system in a documented way.[23]

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[22] Ministry of Innovation and Technology, *Magyarország Nemzeti Energia- és Klímaterve (tervezet)* [Hungary's National Energy and Climate Plan (draft)], 2018, 29.

[23] Zsuzsanna Dávidovits, 'Az ivóvízbiztonsági tervek készítésének nehézségei' [Difficulties in creating drinking water security plans]. Fiatal Higiénikusok Fóruma VII [7th Conference of Young Sanitarians], 10–11 May 2011, Gödöllő, Hungary.

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Charting Possible Performance Indicators Related to Digital Learning Content Supported Learning[1]

Péter BALKÁNYI[2]

During my professional carrier, I participated in several digital content development projects, and in my doctoral dissertation I examined the ecosystem of e-learning development according to the Design Science (DS) methodology. Partly from the practical experience, partly from the comprehensive research, I perceived that few indicators – which can be applied in practice – were determined about the effectiveness and efficiency of a digital learning content development process.

Traditionally, projects can be evaluated by the 'iron triangle': the project is completed on time, within budget in right quality. This approach is not fundamentally wrong, but as several studies point out, it does not provide a complete picture, can even lead to false conclusions, and can determine wrong decisions.

The present work aims to focus specifically on the e-learning content created as a product of professional authoring tools (e.g. the end result is a SCORM standard package). This paper does not seek to take into account the whole development process. In addition to the focus on the content development, it is also important to underline that the background of these findings is in adult learning environments in large or multinational corporations.

In this article, I summarise the key technological, methodological and financial indicators (both key performance indicators and key result indicators) for the learner- and content-centred e-learning materials. Together, these indicators can form a system that gives the opportunity to evaluate and compare e-learning materials in its complexity.

Keywords: *e-learning, curriculum development, digital curriculum, performance indicator, result indicator, indicator system*

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Introduction

Explaining the scope of the study and setting its limitations

The author has been involved in many digital learning content development projects in his professional life. Applying this practical experience and relevant comprehensive research, it has been found that objective indicators have been rarely defined or are simply missing in the literature to measure the effectiveness and efficiency of digital learning content development. Traditionally, projects are evaluated based on the Iron Triangle: a successful project is 1. completed on time; 2. remains within budget; and 3. has good quality results. This approach is not fundamentally wrong, but as several studies point out, it does not give a complete picture and can even lead to off-key decisions.[3]

This article focuses specifically on digital learning content (such as the SCORM package) – created as a result of digital curriculum development. Such a content is usually the result of a complex development process, which in its entirety can be interpreted, e.g. in a complex curriculum development ecosystem. This article focuses specifically on metrics for the digital learning content and metrics of the digital learning content development process. In addition to the limit of focusing on the content, the study scope is limited to adult education in large organisations (by definition: 'having at least 100 employees, running independent human resources services and typically over HUF 1 billion in revenue or operating costs').[4]

In the author's thesis[5], which is the background of this article, the complex ecosystem of the development of digital learning content has been studied according to the Design Science (DS) methodology.[6] In summary, in this article, as a follow up to the doctoral thesis research work, the aim is to define and to identify 1. technology; 2. methodology; and 3. business-based key indicators, measuring objectively learner and content-centric (LC + CC) digital learning. A set of such indicators form a system, that could be used to evaluate individual digital learning content items and also to compare different digital learning content sets. The *technological* and *methodological* aspects *concern quality and performance characteristics* and can be considered *key performance indicators (KPIs)*, the business indicators will be *key result indicators (KRI)* and these will allow the comparison of alternative development trails to training solutions.

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3 Roger Atkinson, 'Project management: cost, time and quality, two best guesses and a phenomenon, its time to accept other success criteria', *International Journal of Project Management* 17, no 6 (1999), 337–342; Paul D Gardiner and Kenneth Stewart, 'Revisiting the golden triangle of cost, time and quality: the role of NPV in project control, success and failure', *International Journal of Project Management* 18, no 4 (2000), 251–256; Danie van der Westhuizen and Edmond P Fitzgerald, 'Defining and measuring project success', *Proceedings of the European Conference on IS Management, Leadership and Governance,* 7–8 July 2005, 157–163.

4 Péter Balkányi, *Az e-learning tananyagfejlesztés ökoszisztémájának Design Science módszertan szerinti vizsgálata* (Doctoral thesis, Budapesti Corvinus Egyetem, 2019), 5.

5 Ibid.

6 Alan Hevner, Salvatore T March, Jinsoo Park and Sudha Ram, 'Design Science in Information Systems Research', *MIS Quarterly* 28, no 1 (2004), 75–105; Alan Hevner and Samir Chatterjee, *Design Research in Information Systems: Theory and Practice* (Springer, 2010).

Applied methodology

In this research a set of qualitative methods have been used: 1. processing literature; 2. empirical data collection; and 3. analysis based on action research and observation. '*Observation* is a directional perception – on the basis of which we reach some conclusion.'[7] During the research the 'participatory – unstructured' type of observation method was used. Such an observation is not preliminary planned, constructed; it is defined as an iterative, informal process.[8] During the research, validation of individual observations and results was checked by triangulation investigations. Thanks to triangulation, the different aspects of qualitative research might be reinforced, complemented and the boundaries of methodology are more clearly visible.[9] To develop the set of indicators, the author relies on the SIPOC method, which is a Six Sigma tool for high-level mapping of a development process.[10] Figure 1 introduces the acronym SIPOC: 'Suppliers', 'Input', 'Process', 'Output' and 'Customer'. This tool is primarily used to map the process of curriculum development at a high level. This is an appropriate tool to build indicators, as the Six Sigma methodology (developed by Motorla in the 1980s) is a bridge between the business world (being practice-oriented) and the (typically highly standardised) world of quality assurance. Applying SIPOC has been proved to develop sets of 1. critical success factors; 2. critical quality factors; and 3. key metrics.[11]

After SIPOC mapping, the next step in building the set of indicators applies the so-called 'business model canvas' (BMC),[12] adapted as the 'lean canvas (LC) model'.[13] Although LC is typically used in the start-up world, in this study it provides a useful framework, because it has the approach to key metrics – in comparison to BMC. Based on these frameworks, a 'canvas' is created reflecting the digital learning ecosystem (hereinafter: 'canvas'), specifically to create KPIs related to digital learning content development.

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7 Ágnes Szokolszky, *Kutatómunka a pszichológiában* (Budapest: Osiris Kiadó, 2004), 250.

8 Jan Savage, 'Participative Observation: Standing in the Shoes of Others?', *Qualitative Health Research* 10, no 3 (2000), 324–339; Szokolszky, *Kutatómunka.*

9 Kálmán Sántha, 'A kvalitatív metodológiai követelmények problémái', *Iskolakultúra* 17, no 6–7 (2007), 168–177.

10 Pedro A Marques and José G Requeijo, 'SIPOC: A Six Sigma tool helping on ISO 9000 quality management systems', *3rd International Conference on Industrial Engineering and Industrial Management,* 2–4 September 2009, 1229–1238.

11 Ayon Chakraborty and Kay Chuan Tan, 'Case study analysis of Six Sigma implementation in service organisations', *Business Process Management Journal* 18, no 6 (2012), 992–1019; Brahim Sabir, Bouzekri Touri and Mohamed Moussetad, 'Using the Integrated Management System and Approach SIPOC in Higher Education for the Evaluation and Improving the Quality of Life of Students', *The Online Journal of Quality in Higher Education* 2, no 3 (2015).

12 Manuel Au-Yong Oliveira and João José Pinto Ferreira, '*Business Model Generation: A Handbook for Visionaries, Game Changers and Challengers,* Book Review', *African Journal of Business Management* 5, no 7 (2011), 22–30.

13 Ash Maurya, *Running Lean : Iterate from Plan A to a Plan that Works* (Sebastopol, CA: O'Reilly, 2012).

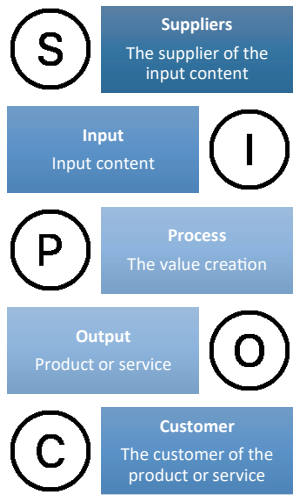

Figure 1: SIPOC model

Source: Compiled by the author based on Marques and Requeijo, 'SIPOC: A Six Sigma tool'.

Table 1: Lean Canvas model

Key partners Problems	Key activities Solutions	Value proposition	Customer service Unfair benefits	Customer segments
	Key resources Key metrics		Channels	
Budget		Revenue		

Source: Compiled by the author based on Maurya, *Running Lean.*

As Table 1 shows, in case of applying LC, mapping key metrics and linking to a specific problem/solution is already inherent in the planning phase. Following the literature review, a canvas is presented for the systematic exploration of metrics related to digital learning content development in section *Identifying key performance indicators.*

Literature review

The following is an overview of the ecosystem of digital learning content development and the curriculum within which the metrics and indicators are interpreted, given the length constraints of this article. In addition, the theoretical frameworks for indicator systems is also explained. The relevant IT environment is reviewed, including the underlying pedagogical and business approaches, all helping to develop more accurate metrics.

The ecosystem of digital learning content development

Based on nearly a decade of experience in developing digital learning content and research, the author sees that there is no single, well-defined and measurable indicator neither for evaluating increasingly widespread and complex digital learning content, nor for the (by digital learning content supported, e.g. blended) training systems. This is the reason to carry out a research that can be applied in practice, which can serve as a basis for the objective evaluation and quality assurance of digital curricula both at the design and final product evaluation stages, based on the Design Science (DS) approach. This approach proved to be, on the one hand, highly pragmatic, containing innovative, practical ICT solutions, on the other hand, it is a scientific methodology.

As a paradigm, the author suggests an 'ecosystem of digital learning development' based on the definition of a business ecosystem of James F Moore's (1996) approach. Such an ecosystem is driven by the interaction of organisations and individuals through the creation of goods and services where actors evolve together. Based on the previously referred thesis work, the ecosystem of digital learning development is structured as shown in Figure 2 below.

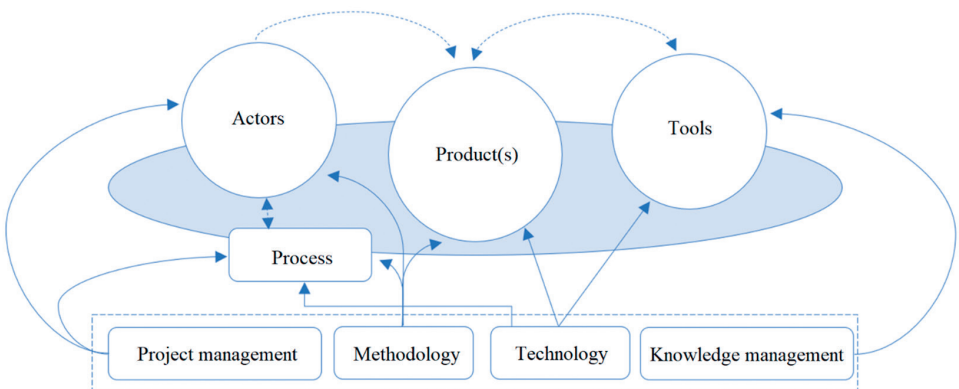

Figure 2: Digital learning development ecosystem

Source: Compiled by the author.

The main components of the ecosystem shown in Figure 2 are: process, products, actors, tools. The interplay of these components and the constantly renewing content and formal elements lead to the construction of a solution (e.g. digital learning content). Continuously interacting elements are also moved by internal cycles and 'ultimately produce a stable product as output at a given moment'.[14] Further on, these components are externally influenced by the theory and practice of: project management, pedagogical methodology, information and communication technology (ICT), knowledge management. These two

[14] Balkányi, *Az e-learning tananyagfejlesztés*, 69.

layers provide both a scientifically appropriate and a practical approach to the learning content developing ecosystem.

Learner and content-centric digital learning

Among the conceptual definitions, it is essential to define precisely what is called 'digital learning content' in this research. According to literature,[15] in the boarder context of digital learner and content centric (LC + CC) learning the term 'digital learning content' is applied as meeting the following criteria:

The content of the digital learning system
- uses a mixture of proofread content types of differing media
- is methodologically and technologically flawless

From the point of view of the design of the digital learning content:
- is modular and designed for on-screen learning
- is easy-to-use and applies intuitive interfaces
- is spectacular (e.g. multimedia content) and interactive

In terms of the learning process:
- allows differing, individualized learning paths
- applies a frame story and / or co-learner and a captivating start[16]

In this article an evaluation framework is presented for digital learning content that meets (at least the majority of) the above listed criteria.

Performance and indicators

Performance evaluation and measurement is a long-standing and widely researched area. This paper does not intend to contribute to the general scientific debate in this area, but it is important to define the relevant essential elements in relation to performance metrics of

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[15] Joanne Capper, 'E-Learning Growth and Promise', *TechKnowLogia* 2, no 2 (2001), 7–10; Eddie Blass and Ann Davis, 'Building on solid foundations: establishing criteria for e-learning development', *Journal of Further and Higher Education* 27, no 3 (2003), 227–245; Virginio Cantoni, Massimo Cellario and Marco Porta, 'Perspectives and challenges in e-learning: towards natural interaction paradigms', *Journal of Visual Languages & Computing* 15, no 5 (2004), 333–345; Ming-Chi Lee, 'Explaining and predicting users' continuance intention toward e-learning: An extension of the expectation–confirmation model', *Computers & Education* 54, no 2 (2010), 506–516; Peter M Sinclair, Ashley Kable, Tracy Levett-Jones and Debbie Booth, 'The effectiveness of Internet-based e-learning on clinician behaviour and patient outcomes: A systematic review', *International Journal of Nursing Studies* 57 (2016), 70–81; Balkányi, *Az e-learning tananyagfejlesztés.*

[16] Balkányi, *Az e-learning tananyagfejlesztés*, 39.

the specific domain of digital learning content and learning. The chosen methodology is based on David Parmenter's work *Key Performance Indicators*.[17]

Parmenter describes four categories of indicators: 1. result indicators (RI); 2. Key result indicators (KRI); 3. performance indicators (PI); and 4. Key performance indicators (KPIs). Of these categories, this article focus is on KRIs and KPIs.

For KRIs, financial and non-financial indicators can be developed. Typically, KRIs summarise events, the quantities measures are not for decision-making, but displaying aggregated results for multiple events. KPIs are typically non-financial, but they are also predictive, have a decision support role and focus on specific events. Parmenter further emphasises that KPIs differ most from simpler performance indicators in that they continually scrutinise critical success factors to enable management to intervene and increase performance. Parmenter identifies seven features in the context of KPIs:

KPI-s are

1. non-financial
2. continuously measurable
3. management focused
4. simple
5. team oriented
6. KPIs have a serious impact
7. are encouraging to take the right action[18]

KRIs summarise on key issues, while KPIs are related to strategic decision-making for organisations. These 'textbook' definitions are also worth considering at the practical level and are to be applied not only to an entire organisation, but specifically when designing a rating system for a 'product' (here for the 'digital learning content'). For example, 'continuous measurability', 'simplicity' or 'encouraging to take action' are all proven practice-oriented aspects.

Technology, methodology and business framework for evaluation

In order to develop specific indicators, it is worthwhile to recall the evaluation systems associated with the training environment, as the digital learning content appears in this context. In a corporate environment, Kirkpatrick (1977) uses a four-level evaluation system (or individual solutions based on these): 1. evaluation of reactions; 2. evaluation of learning; 3. evaluation of change; 4. evaluation of long-term results. This is complemented by a fifth aspect by Philips: 5. return on investment.[19] Shelton (2010) developed a 70-item index system that evaluates distance learning programs in higher education. This index

[17] David Parmenter, *Key Performance Indicators: Developing, Implementing, and Using Winning KPIs* (John Wiley & Sons, 2015).

[18] Ibid. 12.

[19] Dominique L Galloway, 'Evaluating Distance Delivery and E-Learning: Is Kirkpatrick's Model Relevant?', *Performance Improvement* 44, 4 (2005), 21–27.

system is an explicitly diverse contribution to the current research. The author's own research[20] tells that 'in addition to evaluating the training and distance learning system, the technology aspects can be evaluated by the user attitudes based on the Technology Acceptance Model (TAM)'[21] criteria that take into account social and environmental impacts and support the learner.[22] The student perspective was examined by Jung (2011) and, based on his research, reached the level of digital curriculum by Busstra (2007) and Diederen (2003). These sources together suggest that the following are the most important aspects of evaluations: '1. meeting learning objectives; 2. developing and maintaining student motivation; 3. active learning and learner support; 4. a visual representation of the curriculum that encourages and supports the previous points.'[23]

Table 2: Relationships among the different evaluation criteria

	Technology	Methodology	Finance
Goals of learning	○	●	○
Motivation of the learners	●	●	○
Supporting active learning	●	●	○
Visual representation	○	○	●

Note: ○: weak connection; ●: strong connection

Source: Compiled by the author.

Perhaps the most important issue from the learning perspective is the use of the pedagogical methodology itself, which, in its complexity, is often inadequately used in the development of digital learning content. To summarise the methodological aspects, it is worthwhile to start summarising the expectations of the digital learning content from a wider context. István Nahalka in his book *How Does Knowledge Develop in Children? Constructivism and Pedagogy*,[24] based on ideas of Aebli (1951), writes about three approaches to learning, about three theoretical systems for pedagogy: 1. pedagogy of words and books (knowledge transfer); 2. pedagogy of demonstration; 3. pedagogy of activities. Related to this, there is one more approach, 4. constructivism, which states that '…knowledge will not be the knowledge of one in the process of mediation but will be created and constructed by himself. […] Cognition is an active […] process. […] The basic idea of constructivism is to acquire new knowledge on the basis of our existing knowledge' – as stated by Nahalka.[25] Table 3 below summarises the comparison between the four approaches.

20 Balkányi, *Az e-learning tananyagfejlesztés.*

21 Ibid. 41.

22 Csedő et al., 'Online képzési stratégiák és módszerek a közszolgálati továbbképzésekben', *Információs Társadalom* 14, no 1 (2014), 9–28.

23 Balkányi, *Az e-learning tananyagfejlesztés*, 42.

24 István Nahalka, *Hogyan alakul ki a tudás a gyerekekben? Konstruktivizmus és pedagógia* [How Does Knowledge Develop in Children? Constructivism and Pedagogy] (Budapest: Nemzeti Tankönyvkiadó, 2002).

25 Ibid. 81.

Table 3: Comparison of pedagogical theoretical systems

Viewpoint	Knowledge transfer	Demonstration	Activity	Constructivism
Strategy	• passing on systematic knowledge • learning these texts as accurately as possible	• individual attention becomes important • perception is an important aspect • use of various sensorial input • knowledge related to lifestyle	• focus: • active learner • stimulus-rich individual activity • teacher supports active activities	• based on differentiation and construction of knowledge by problem solving • based on prior knowledge with evaluation processes
Organisation	• student groups • (typically in religious and royal courts)	• class and lessons	• typically: • in classes, lessons combined • epochal organisation	• project groups • processing of a topic • independent research • 'lifelong learning' approach
Organisation of learning	• accurate mastery of dogmas by the authoritative teacher with undisturbed attention	• with frontal, independent interpretation • knowledge according to the social division of labour	• collaboration solutions • group work • project work • less frontal style	• prior knowledge of students and groups is crucial • can be individual, double, group, frontal
Tools for teaching	• oral presentation • explanation • book reading	• book • pictures • objects • models • experimental tools	• a variety of tools related to student activity	• the importance of a learning environment
Methodology	• reading aloud of learned texts • joint repetition • memorisation • deductive processes • individual thoughts have no role	• new: illustration	• mostly student activities: • group work • games • search for solutions • possibility of error	• differentiation • prior knowledge assessment • continuous assessment • individual learning opportunities • problem solving
Design process	• only content aspects • transfer of pre-planned knowledge	• objective illustration involving as many senses as possible	• activity at the centre, carried out by the student • based on the specific needs of the students • written text pushed into the background	• differentiated activities based on prior knowledge assessment • several approaches can be applied

Source: Compiled by the author based on Nahalka, *Hogyan alakul ki a tudás a gyerekekben?*

These four approaches, which can be considered the conceptual development of understanding learning, are also particularly important because, as viewed by the author, the development paths of digital learning content followed partly the same steps and it is worth reflecting on these similarities. One might expect that digitalisation is dominated by the 'pedagogy of action' or 'constructivist approaches', involving many communication and collaboration tools, but reality is far from this.

Table 4: Theoretical pedagogical systems and digital learning materials

Theoretic framework of pedagogy	**Digital learning content**
Knowledge transfer	Learning contents that typically have a strong textual predominance are in many cases simply distributed in the form of pdf or lecture files. In fact, those are electronic forms of books. (By my definition, these are not digital learning materials, see section *Learner and content-centric digital learning*, but in many cases, they are also seen as e-learning content.)
Demonstration	Simple forms of digital learning material are mostly based on 'next-next-next' clicking, scrolling. Illustrations already appear, the visual representation is richer and multimedia content (e.g. video) support the learner. Optionally, narration is also associated with the curriculum, typically in the form of reading aloud on-screen text. This might include on-screen video content, e.g. for software education. In some respects, individual learning pathways may already appear, but their really deep application would already presuppose the appearance of a teacher, mentor, tutor, which is (usually) more typical at the next level.
Activity	In the case of action pedagogy, the joint creation of complex interactions and products between and by students and teachers supports a truly in-depth learning. Thus, in addition to the digital teaching materials, a special emphasis should be placed on the course management and on the teacher himself. These include digital learning materials that support individual learning paths and/or that are interactive (where appropriate: gameful) content. There are decision-making situations for students, and quizzes and tests that assess their knowledge and provide immediate feedback, that can complement learning. Software simulations can be included here, where the learner is not only a passive recipient, but can also try out the given software on the interface of the digital learning tool. Complex learning materials also appear here, which, through simulations, adapt the learning process, based on students' decisions, and in addition, a powerful peer-to-peer communication and collaboration approach is created.
Constructivism	As 'constructivism' differs from the means of reforming the 'pedagogy of action' less methodologically than in its conception of learning, we can typically reflect on a constructivist approach rather on the embedding of that curriculum in a learning environment, than on the curriculum, itself. According to this approach, the learning process is essential, the material can be even very simple. In this case, we definitely want to reach out to the existing knowledge of the learner and support the construction of knowledge with the help of communication and collaboration solutions.

Source: Compiled by the author.

Based on the above outlined 'four aspects' approach, the suggested pedagogical methodology elements (PME) are the following:

1. *PME, fulfilment of learning objectives:* Assuming that the digital learning content is well-defined from the perspective of the objectives to achieve, it is expected that

(from the methodological point of view) the input requirements should be clear and the digital learning content should reflect to the defined output requirements.

2. *PME, developing and maintaining student motivation:* Various schools offer different solutions to develop and maintain student motivation. Due to the limited length of this paper, only some of the cornerstones of the 'gameful learning' trends are highlighted here.[26] This method focuses on the importance of intrinsic motivation based on self-determination theory (SDT). SDT takes into account three needs: 1. autonomy; 2. relatedness; and 3. competence.[27]
3. *PME, active learning and active learner support:* The pedagogy of action and/or constructivist approach to school can be formulated as a requirement to develop a kind of learner-generated, actively created, self-generated knowledge that is generated by inter alia, the interaction of digital content and the environment.[28]
4. *PME, visual appearance of teaching materials:* From the methodological point of view, this is probably the least affected area. The digital learning content is expected to have a visual appearance that fits the pedagogical concept well. The concept is based on the pedagogical methodology (e.g. by having or not a frame story), and it is influenced by the issue of addressing (e.g. a 'thee-ing and thou-ing' content requires a completely different visual than another one, using 'you' for 'thou'). Creating a visual theme should be also inherently influenced by the subject (e.g. there are completely different visual solutions for a 'job safety and fire protection' digital learning content than for a 'product knowledge' or 'soft skills' related content).

In order to be able to evaluate a completed digital learning content from an information technology (ICT) point of view, it is worth summarising what can be expected from such an assessment point of view:

1. *ICT, achieving learning objectives:* In this context, the 'invisibility' of technology is the basic requirement, that is, problem-free operation and IT support. For example, function buttons work, do not get stuck on a screen, individualised learning paths work, etc.
2. *ICT, developing and maintaining student motivation:* The proper functioning of the digital learning content is essential for maintaining proper (internal) motivation. This can be further supported with technological solutions aimed at improving the students' confidence of their own ICT competency, i.e. using easy-to-use (intuitive) interfaces. There should be individual learning paths, interaction opportunities and scoring solutions. Motivation is further maintained by multiple technology solutions combined within a single material. For example, subtitling videos, downloadable audio, etc.

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[26] Dichev et al., 'From Gamification to Gameful Design and Gameful Experience in Learning', *Cybernetics and Information Technologies* 14, 4 (2015), 80–100.

[27] Richard M Ryan and Edward L Deci, 'Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being', *American Psychologist* 55, no 1 (2000), 68–78.

[28] István Nahalka, 'Konstruktív pedagógia-egy új paradigma a láthatáron (I.)', *Iskolakultúra* 7, no 2 (1997), 21–33.

3. *ICT, active learning and active learner support:* The design of the interface should encourage the learner to be active, to systematise his/her own thoughts, and to be able to implement solutions that require high interactivity. In addition, there should be help and references supporting the use of the digital learning content at the level of the material's technical frame.
4. *ICT, visual appearance of the digital learning content:* In terms of ICT solutions, the digital learning content should use the most advanced visual appearance currently available. An example is, at time of this article, the mobile-friendly (responsive) appearance. All technologies should be applied that provide a 'fashionable' look, interaction and animation.

In addition to pedagogical and technological approaches, business and financial expectations (BFE) can be formulated as follows:

1. *BFE, achieving learning objectives:* Mapping learning objectives should be such an item within the budget for a digital learning content development that should be proportionate. Experience has shown that in most cases, accurate definition of objectives is not achieved, as fuzzy objectives might keep implementation costs lower. This is, however, a wrong approach, because work (e.g. a survey of demands) invested at this stage eases significantly the manufacturing process, and, even more so, it pays back in terms of the effectiveness of the digital learning content.
2. *BFE, developing and maintaining student motivation:* The relevant business indicator requirement should be a measure of whether methodologically sound and technologically feasible developments (e.g. individual learning paths, gamifying assignments, etc.) are satisfactory or they are exaggerated from cost-effectiveness perspective.
3. *BFE, active learning and active learner support:* Active learner support should be available as a professional service, in terms of consulting opportunities (even online) – as related to the digital learning content. Here, you can expect to have a digital learning process support service with limited contact hours.
4. *BFE, visual appearance of the curriculum:* The visual appearance, although it involves many methodological and technological aspects, becomes a financially limiting issue for most digital learning content development projects. Expect a digital learning content design to ensure the development of a user interface's framework appropriate to the project budget limitations (e.g. basic or advanced image design).

After reviewing the frameworks and expectations, in the followings, the development of a concrete system of indicators will be presented.

Identifying key performance indicators

Following a summary of the theoretical background, this section presents the research leading to key performance and result indicators. As explained above, the work was based on the action research strategy (which is an active participatory, hands-on research

approach[29] and applied Rapoport[30] insights: in a cyclical research process created by continuous feedback.[31]

The process of developing digital curricula

Regarding the process of digital learning content development, the measurement toolkit described is based on the five-cycle curriculum development model[32] shown in Figure 3.

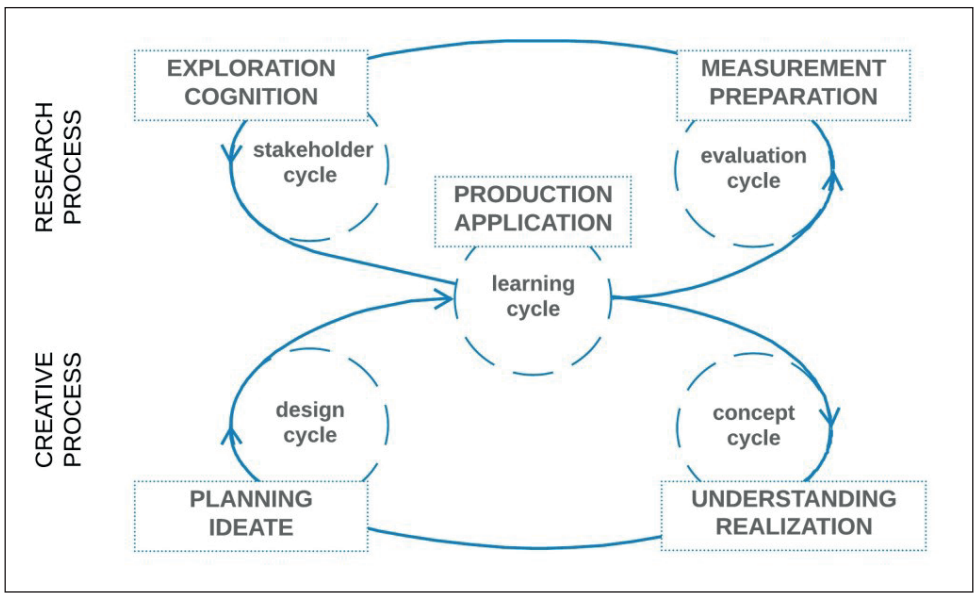

Figure 3: Five-cycle digital learning content development process

Source: Balkányi, *Az e-learning tananyagfejlesztés.*

An essential element of this model is that it looks at a digital learning content in development process embracing a complex life cycle. In this study a new, complex set of criteria is created, in connection with the 'Measurement, preparation' phase. The (to this phase) associated evaluation c ycle already includes the preparation of the next development elements as well.

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29 Clem Adelman, 'Kurt Lewin and the Origins of Action Research', *Educational Action Research* 1, 1 (1993), 7–24; Hilary Bradbury-Huang, 'What is good action research? Why the resurgent interest?', *Action Research* 8, no 1 (2010), 93–109.

30 Robert N Rapoport, 'Three Dilemmas in Action Research: With Special Reference to the Tavistock Experience', *Human Relations* 23, no 6 (1970), 499–513.

31 Robert S Kaplan, 'Innovation Action Research: Creating New Management Theory and Practice', *Harvard Business School*, 1998.

32 Balkányi, *Az e-learning tananyagfejlesztés.*

To explore the details of the above process, the SIPOC model helped to map out the entire development process. SIPOC's elements provided the dimensions for metrics.

Table 5: SIPOC table for e-learning curriculum development

Supplier	Input	Process	Output	Costumer
E-learning expert	best practices, guidelines, methodological expertise	Five-cycle development model applied to the vendor needs	research report, concept, curriculum, plan	project manager
Screenwriter	development of a framework story, learnable content		scenario, screen play, script	content editor, production manager
Production manager	best practices		manufacturing plan	project manager
Researcher	survey, examination, research methodology		research results, conclusions	e-learning expert
Artist	creativity, knowledge of user interfaces, software knowledge		illustrations, videos, animations, sounds, etc.	production manager, curriculum editor
Project leader	best practices, guidelines, project management skills		project documentation, delimitations, project process	learner
Content editor	application of development software		digital learning content	production manager
Learner, student, pupil	learning needs and habits		knowledge, information, competences, attitude change	future student, researcher
Area expert, author	professional content		material expertise	e-learning expert, screenwriter

Source: Compiled by the author.

Table 5 summarises the SIPOC model of the entire development process. During the research, the inputs, the sub-processes and the outputs related to the customers for each supplier were each one by one analysed. Typically, the SIPOC model provides guidance at this point in the development of KPIs by mapping and untangling sub-streams. This was supplemented by a canvas model, which, firstly, provides additional help to unravel the sub-process and secondly, provides a framework for the systematic exploration of different evaluation aspects.

Create metrics by defining frameworks

Sub-processes, explored using the SIPOC model, provide a framework for creating the canvas. (Due to length limits of this paper, these will not be shown in full details.) Three main, pre-planned directions formed the main categories of analysis: 1. methodology; 2. technology; and 3. business. Applying the methodological aspects established in section *Technology, methodology and business framework for evaluation*, the first, base set will be *participant goals* (SIPOC: customers), while from the second, the technological point

of view, the *operators' goals* (SIPOC: suppliers) orient the investigation. Step 3 is setting *business goals* connected to the process (SIPOC: process elements).

The key issue for *these three metrics* is to understand what a *particular customer* wants, what *the operating vendor* wants and *what the business wants.* Metrics should catch also the added value associated with these goals through the digital learning content development. All individual metric must be specific and measurable. This also means that some goals might need more than one metric, so that it can be fully 'grasped', ultimately forming a complex specific indicator (performance or result). The input and output elements of the SIPOC model helped with this.

For each of the three main categories (methodology, technology, business) the individual actors were individually analysed. Then, within the three categories, four expectation factors (teaching purpose, motivation, activity, presentation) were studied. Altogether, a set of 88 measurable goal- and value-criteria propositions were determined. For this systematic collection, a canvas shown in Table 6, was created, which is a revision of the 'lean canvas' presented in section *Applied methodology.*

Canvas design: an example

Table 6 below shows a sample for a methodological category. The starting point is given by the participating actors: in this case, the measurable elements are displayed, that quantify the behaviour of the learner – focusing on the curriculum development process.

Table 6: Sample methodological canvas

<table>
<tr><td colspan="2">Participant's goal, value proposition:
Developing digital learning content that employees (students) can use on a daily basis.</td></tr>
<tr><td>Participant behaviour:
An employee
• asks questions about a particular product while working
• documents these issues
• asks/draws the attention of your manager
• participates in the (professional) content development of the curriculum</td><td>Measurable elements:
• % indicates questions
• % prepares documentation
• % asks a question to managers
• % participates in content design</td></tr>
<tr><td colspan="2">Key performance/result ratio:
Digital Learning Content Development Involvement Index: the proportion of employees involved in curriculum development and the development of organisational knowledge.</td></tr>
</table>

Source: Compiled by the author.

In this case, it may be informative for the organisation how many people are involved in developing organisational knowledge. The indicator is called the *Curriculum Development Engagement Index – CDEI.* Similarly, other new metrics have been developed, expressed as tangible KPIs.

Indicator system

The canvas design, resulting in a systematic study, identified over 100 measurable elements. Nearly 30 KPIs and KRIs have been constructed using the elements.

Table 7: List of technology and methodology KPIs, KRIs

Measurable elements (digital learning content – DLC)	KPI–KRI
• number of goals • number of learning elements • number of activities • number of comments	Activity implementation indicator number of activities/learners (comparable to other digital learning content)
• ratio of readable to unreadable parts (100%: all readable) • proportion of parts with the right amount of text compared to overcrowded (100%: adequate amount of text) • ratio of hover effects (100%: if all clickable content gets one) • proportion of multimedia elements (100%: all relevant elements are associated with multimedia support)	Learnability Indicator A percentage created from rates of • readability • text volume • mouse control • multimedia content exposure
There are individual learning pathways: y/n Different types of learners are differentiated: y/n Can the learner solve the quizzes more than once? y/n Are there optional learning elements? y/n	DLC autonomy indicator How much of the elements that strengthen student autonomy (individual learning paths, differentiation between student types, multiple solutions of tests, optional learning elements) are used? (Number of 'yes' answers.)
Is the structure easy to follow? y/n Is there an opportunity for students to measure back what they have learned? y/n Is there an evaluation of students' tests in detail (e.g. with global feedback)? y/n Are there other than binary (successful/unsuccessful) tests? y/n Is the content appropriate for several levels of learning? y/n	DLC competence indicator How much of the elements supporting the student's sense of competence (traceability, re-measurement, feedback, complex tests, learning levels) does the given curriculum apply? (Number of 'yes' answers.)
Does the DLC include a person-reflective element? y/n Does the DLC include an individual learning pathway? y/n Does the DLC provide an opportunity for communication between team members? y/n Does the DLC include sections on individual learning goals? y/n	DLC connection indicator How much of the elements strengthening the student connection (personalisation, individual route, communication, individual goals) is used by the given curriculum? (Number of 'yes' answers.)
Are there specific input requirements? y/n Are there specific output requirements? y/n	Teaching objective indicator Are there defined input and output requirements?
Do texts / multimedia content support student motivation? y/n	Content support indicator Does the textual, multimedia content motivate the students to achieve the learning goal?
Do texts / multimedia content support the achievement of learning goals? y/no	

Measurable elements (digital learning content – DLC)	KPI–KRI
Is spelling checked? y/n Is the invocation consistent? y/n Do all navigation buttons work? y/n Do all elements involved in the interaction have a hover effect? y/n Is the content browsable? y/n Does interactive content work? y/n	Production technology quality indicator How many of the typical quality indicators of the production process (6 pieces) are implemented?
? % of the student population participated in the survey ? % of key users participated in the survey	Research participation indicator X % participation of key users in curriculum design
Did the key users formulate input goals? y/n Did the key users formulate learning goals? y/n Did the key users formulate output goals? y/n	Goal setting indicator Are the input, output requirements and learning goals defined?
• Ratio of completed interactive elements • Proportion of collaborative tools used • Time spent studying • Time spent on tests • Success rate • Success/failure rate • First time success rate of tests	Student activity indicator X % of use of built-in interactive and/or collaboration solutions Learning time indicator a comparative number of planned learning times and actual learning times Testing efficiency indicator the proportion of successful tests weighted by the first successful tests
Did the student follow his or her individual learning path? y/n Did the student find the right content/methodology for their own learning habits? y/n Did the student solve the test multiple times (in case of failure)? y/n Did the student choose from the optional items? y/n	Implemented autonomy indicator How many of the elements supporting autonomy have been achieved during learning?
Is the structure of the content easy to follow? y/n Does the DLC provide an opportunity for students to measure back what they have learned? y/n Does the DLC evaluate students' tests in detail (e.g. with global feedback)? y/n Does the DLC use only binary (successful/unsuccessful) tests? y/n Is the DLC appropriate for several types of learning? y/n	Achieved competence indicator How many of the elements supporting the sentiment of competence have been achieved during learning?
Does the DLC include a person-reflective element? y/n Does the DLC include an individual learning pathway? y/n Does the DLC provide an opportunity for communication between team members? y/n Does the DLC include sections on individual learning goals? y/n	Achieved connection indicator How many of the elements supporting connectedness were achieved during learning?

Measurable elements (digital learning content – DLC)	KPI–KRI
? % of students met the input requirements ? % of students studied the course material (dropout) ? % of students passed the exam	Three levels of dropout: X % of the target group of students were able to study the material, of which Y % learned and Z % passed the exam successfully. Dropout rate number of successful candidates/total target group
Source material size Final DLC size Part of material that had to be checked and revised	Compression indicator final curriculum (text) size/source material size Proofreading indicator number of errors to be corrected/screen
• Number of technologies selected • Number of aids produced • Number of comments	Activity planning indicator percentage of activity-promoting elements among the total learning elements
The difference between the version number of the latest version of an applied technology and the version number of applied technology	Technological freshness indicator the differences between the applied technology and the latest versions of the given technology available (the closer to 0, the better)
Existence of an application that assesses input and output knowledge. y/n	Teaching objective tool indicator Are there tools to measure specific input and output requirements?
Does the curriculum have the necessary 'compulsory' (title page, closing page, etc.) elements? y/n Are the instructions clear? y/n Is the role of the 'accompanying character', if any, in the curriculum clear? y/n Does the DLC help the student with highlighting important information? y/n Is there an instruction associated with each user interaction? y/n Transition text is associated with each screen. y/n All screens are arranged (no two overlapping elements, fonts are uniform, the page is transparent). y/n The length of the curriculum is in line with the planned learning time. y/n Tests can be solved based on what has been learned. y/n The curriculum summary screen summarises the content of the curriculum appropriately. y/n	Production methodological quality indicator How many of the typical quality indicators of the production process (6 pieces) are implemented?
What types of technology do 'artists' use? Are the various software/result products interoperable? y/n	Technology compatibility indicator the technologies used are X % compatible/ interoperable with learners' devices
Number of software used for curriculum development. Percentage of paid and free applications.	Technological environment complexity indicator based on the number of applied technologies, the DLC development projects can be compared

Measurable elements (digital learning content – DLC)	KPI–KRI
Was the student able to walk the individual learning path? y/n How long did it take the student to complete the curriculum? Did the student solve the test more than once? y/n Has the student tried any interactions? y/n What percentage of the learning paths did the student follow? X % of students retried several times.	Completion time indicator the average indicator of the completion of the curriculum Curriculum mapping indicator students mapped X % of the curriculum on average Student activity indicator number of student clicks, average number of clicks per student
X % of students completed the curriculum. Y % of students completed the re-measurement. Students completed the re-measurement with a score of [n]. For question [n], students gave X correct answers.	Curriculum achievement indicator X % of students have completed the material Student achievement indicator aggregation of results Correct answer indicator the ratio of correct and incorrect answers is an indicator

Source: Compiled by the author.

Due to the article's length limit the following KPIs are highlighted:

1. *Learnability Index:* A measure constructed from 1. readability; 2. amount of text; 3. mouse control; and 4. percentage of multimedia content.
2. *Internal student motivation index:* a complex indicator showing the compliance with 13 various criteria supporting student autonomy, competence and connection.
3. *Manufacturing Technology Quality Index:* A percentage indicator composed of 6 typical quality indicators of the manufacturing process from technology point of view.
4. *Manufacturing Methodology Quality Index:* A percentage indicator of 10 typical quality indicators of the manufacturing process from pedagogical methodology point of view.
5. *Activity Inducing Index:* The percentage of activity inducing items among the total learning elements.

Among all the KRIs, including business and other indicators performance indicators, the following are highlighted:

1. *Learning Time Index:* A comparison of the planned learning time and the actual learning time.
2. *Churn Index:* Ratio of successful/drop out candidates.
3. *Cost of learning time index:* The cost structure of the entire digital learning process compared to the total cost structure of attendance training (e.g. travel, room reservation, catering, etc.).
4. *Time of ROI Index:* A comparison of the added cost of the digital learning content development plus the organisation's learning time to the difference of attendance and digital learning content supported training costs (learning time, travel time, etc.).
5. *Financial Index of Mentoring:* The (average) cost of mentoring per person.

As can be seen from the list above, the system of KPIs developed is very diverse, for which it is important to note, that not all indicators can be applied to every digital learning content development. It is advisable to define the indicators during the concept cycle, which can then be systematically measured afterwards throughout the digital learning content development. In the case of financially specific KRIs, it is worthwhile to develop complex, unique indicators that can be determined by the organisation. In the above list, Financial Index of Mentoring is just one example of the possible metrics for the possible quantifier.

Summary and outlook

In this article, the ecosystem of digital learning content development was investigated, outlining a theoretical framework for developing indicators of content and process. An action research strategy was applied, based on the literature review of the theoretical background. The practical research was detailed in the second part of the article, with the introduction of specific indicators. Limitations of length and scope framed results interpretation. This frame is characterised by studying large companies, with many employees or locations. However, the results can also be applied to similar projects in public administration or higher education contexts.

In total, by applying the suggested methodology a wide set of key indicators have been identified to measure the digital learning content development project of various organisations. Having this wide set enables to build unique, case specific mix of these indicators for actual digital learning content development projects.

Just as it is necessary to set specific learning goals during development, so it is necessary to do this for measuring goals. While, on the one hand, this article introduces elements that can be used for these measurement purposes, on the other hand, the described research also opens the door to further research, where the suggested measurements already in practice will validate the actual usefulness or uselessness of each KPI. It would be worthwhile to investigate in detail and in depth the overall measurable indicators of the digital learning content development ecosystem (e.g. the quantitative and qualitative elements of the application of related scientific results). This work has not been completed at the end of this article, as the measurability of the ‘adequacy’ of the training area, and within it, that of the digital learning content-supported solutions, is still undeveloped, while the quality and competitiveness of training in organisations can and should be further enhanced.

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