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CENTRE OF GRAVITY (COG) ANALYSIS OF TERRORIST ORGANIZATIONS: PKK CASE

Oğuzhan PEHLİVAN*

ABSTRACT

This study¹ aims to understand the center of gravity (COG) analysis, scrutinize its application to terrorist organizations by reviewing the examples in literature, and finally adapt this analytical tool to PKK terrorist organization at a strategic level. Strange (1996)'s approach to COG is based on three sub-components, which are enumerated as critical capabilities, requirements, and vulnerabilities. It is identified that Strange's COG analysis is applicable and not obsolete for terrorist organizations. Furthermore, critical capabilities, requirements, and vulnerabilities of the PKK organization are asserted by analyzing at the strategic level. As a result of testing two hypotheses, it is found that PKK has no constant COG throughout its background, and its COG is changing according to the periods. Additionally, the COG of PKK is molting capability and adaptability in altering situations. In terms of the main pillars of the terrorist organizations in terms of the literature, while PKK has a heterarchical network, multi-financing domain, and foreign state support capacity, it has no constant ideology. It has been considered that the focal point of fighting against PKK should be on blocking the foreign state support capacity and multi-financing domains that are currently the critical capabilities of the PKK.

Keywords: Center of Gravity (COG) Analysis, Critical Capabilities (CC), Critical Requirements (CR), Critical Vulnerabilities (CV), Counter-terrorism.

TERÖR ÖRGÜTLERİNİN AĞIRLIK MERKEZİ ANALİZİ: PKK Örneği

ÖZET

Bu çalışma², ağırlık merkezi analizini anlamayı, literatürdeki örnekleri inceleyerek terör örgütlerine uygulamasını irdelemeyi ve son olarak bu analitik aracı stratejik düzeyde PKK terör örgütüne uyarlamayı amaçlamaktadır. Strange (1996)'in ağırlık merkezine yaklaşımı, kritik yetenekler, ihtiyaçlar ve hassasiyetler olarak sıralanan üç alt bileşene dayanmaktadır. Strange'in ağırlık merkezi analiz uygulaması terör örgütleri için uygulanabilir ve güncelliğini yitirmemiş bulunmuştur. Ayrıca PKK örgütünün kritik yetenekleri, ihtiyaçları ve hassasiyetleri stratejik düzeyde analiz edilerek ortaya konulmuştur. İki hipotezin test edilmesi sonucunda PKK'nın geçmişi boyunca sabit bir ağırlık merkezi negişen durumlara uyum sağlama

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yeteneğidir. Terör örgütlerinin temel sütunları olarak sıralayabileceğimiz ideoloji, ilişki ağı, finansman ve liderlik kapsamında irdelendiğinde PKK'nın heterarşik bir ağa, çoklu finansman alanına, dış devlet destek kapasitesine sahip olduğu; bununla birlikte sabit bir ideolojiye sahip olmadığı görülmüştür. PKK ile mücadelede odak noktasının, PKK'nın hâlihazırda kritik yetenekleri olan dış devlet destek kapasitesi ile çoklu finansman alanlarının engellenmesi olması gerektiği değerlendirilmiştir. Devletlerin uygulama kapasiteleri, meşru otoriteleri, ekonomik, mali ve sosyal ağlara kolaylıkla ulaşabilmeleri, istihbarat ve teknolojik kapasiteleri, eğitim ve öğretim kabiliyetleri, insan gücü ve uzmanlıkları terörle mücadelenin gücünü artırmaktadır.

Anahtar Kelimeler: Ağırlık Merkezi Analizi, Kritik Kabiliyetler, Kritik İhtiyaçlar, Kritik Hassasiyetler, Terörizmle Mücadele.

1. INTRODUCTION

The term "*Center of Gravity (COG)*" is drawn from Carl von Clausewitz's famous book "*On War*" and theorized later by other scholars depending on his main ideas. For instance, Saxman (1992, p.38) articulated that "*the term COG means something to everyone, but not the same to anyone*". Clausewitz's concept of COG has generated much discussion in the last twenty-five years after being "re-introduced" to doctrine. According to the another translation of the COG (Calusewitz, 1984, pp.595-596), it is defined as "*Out of these characteristics a certain center of gravity develops, the hub of all power and movement, on which everything depends. That is the point against which all our energies should be directed*". Even though there are some different applications for the COG, most of the armies of the world still prefer using this analytical approach for their military planning at the tactical, operational, and strategic levels.

PKK (*Partiya Karkerên Kurdistanê – Kurdistan Workers Party*) is listed as a terrorist organization by many states like the United States (USA, 2023) and the United Kingdom (UK, 2013) and international organizations like North Atlantic Treaty Organization (Bagheri, 2017, p.155) and European Union (CCP, 2009).

There are some articles about the application of the COG analysis on terror organizations in literature. For instance, Reilly (2002, p.25) studied on the global war on terrorism and the COG analysis of al-Qaeda. In another example, Schweitzer (2003, p.32) worked on the same terror organization and focused on decisive points of COG analysis. Furthermore, Davis (2003, p.48) studied religiously motivated terrorism and highlighted the importance of the war on terrorism. In his study, he articulated the significance of COG analysis and emphasized the necessity of using political, economic, and

diplomatic initiatives. Ethridge Jr. (2004, p.17) attempted to define COG, critical capabilities (CCs), critical requirements (CRs), and critical vulnerabilities (CVs) of al-Qaeda properly. Keppler (2005, p.21) analyzed the ends, means, and ways of radically motivated terrorists. In addition, Smart (2005, p.42) studied COG and claimed that ideology is not accepted as COG of terror organizations. Neumann et. al (2011, p.830) scrutinized the role of middle managers as COG. The common feature of previous studies is that they use the same COG analysis approach belongs to Strange (1996). Although many COG analysis methods exist in the literature, no COG analysis has been conducted on a PKK terrorist organization.

This study aims to understand the COG analysis, scrutinize its application to terrorist organizations by scanning the examples in literature, and finally, adapt this analytical tool to PKK at the strategic level.

In the first part of the study, COG analysis and theoretical background were analyzed. After that, the critical capabilities (CC), critical requirements (CR), and critical vulnerabilities (CV) of terrorist organizations were perused. In the second part, the hypothesis of the study was revealed, and additionally COG analysis was found as an applicable and not an obsolete strategy for terrorist organizations. Finally, two hypotheses were questioned to illuminate whether PKK has constant COG or not in terms of the main pillar of the terrorist organizations to sustain their lifes. In the conclusion part, the main findings were summarized, limitations were expressed, and suggestions were submitted.

2. THEORETICAL FRAMEWORK

The remainder of this part is structured as follows. The first section scrutinized the meaning of COG and COG analysis and different approaches to COG. In the second section, the literature is reviewed on the critical capabilities, requirements, and vulnerabilities of terrorist organizations that are the sub-dimensions of COG.

2.1. Terrorism, COG, and COG Analysis

Laqueur (2017, p.14) articulated that terrorism is one of the most perilous threats that humanity meets, and unfortunately, there is no single definition of terrorism existing. One of the recent studies, which is executed by Schmid et. al (2021, p.143), indicated that even though there is a great

compromise on the top two items, which are *"violence"* and *"political"*, there has been little agreement on the other terms.

Who will be the ultimate winner of this struggle against terrorism is a never-ending story. However, this does not mean that there is nothing to finalize terrorism. According to Laqueur (2004, p.57), we can complicate the life of terrorists and limit their acting capabilities. From this point of view, revealing the capabilities of terrorists improves and strengthens our strategies against terrorist organizations and provides us with an understanding of their COG.

Clausewitz originally used the term "a center of power and movement" (Iron, 2001, p.109). However, the translators of Clausewitz's "On War" book used the term "center of gravity" (Howard and Paret, 1989, p.119). They also used the analogy of the hub of the wheel as the center of gravity (Iron, 2001, p.109). Probably, this metaphor has found wide acceptance in academic literature and even today COG is still in use. According to Iron (2001, p.109), COG is the most effective goal to blow and is generally situated where the great mass is placed.

Given that Clausewitz is among the pioneers of this field, it is valuable to begin by analyzing his conceptions, goals, and concepts around the COG concept. Clausewitz shows in the pages of On War that using the COG principle is the first step in designing and organizing a campaign. The utilization of COG in the renaissance of effects-based operations is also disclosed in his publications (Stitt, 2004).

Since then, modern Western forces have interpreted and implemented the idea as a means of concentrating military operations. We may beat the enemy and protect our own COG by applying the COG concept to analyze and simplify friendly and adversary forces (or systems) in a mechanistic and linear manner. The military community finds this concept interesting since it presents the opportunity to employ targeted military power against the weak points of a clearly defined enemy (Karlquist et al., 2009, p. 2).

A COG is also described by Clausewitz as "*the most effective target for a blow*". This stands for a target area, which can be destroyed to provide one a clear edge over an opponent. He claims that to beat the opponent, one must concentrate their efforts at this point. Since the opposition employs the same tactic, one must also protect allied COGs in addition to taking out the opponents' COG. One must destroy the enemy's COG to defend one's own to survive on the battlefield (Potter, 2017, p. 12).

Schweitzer (2003, p.2) emphasized 13 characteristics of COG. These are enumerated temporariness, a close link to objectives, time and space dependence, existence in each level, changing over time, having abstract elements, especially at the strategic level, physically endangered because of its COG, militarily intangible, leverage, allowing or enhancing freedom of action, location in adversary's mass, changeability in every phase, physical in operational and tactical level. These features are crucial before deciding and evaluating the COG of any threat and adversary.

Decision analysis is mainstream in military planning. Although there are other analytical tools such as game theory and SWOT analysis to decide with incomplete knowledge, COG analysis is currently used in NATO nations as the main decision instrument. According to Falzon (2006, p.630), COG analysis is a complementary and cognitively demanding way of military planning. There are mainly two distinct methodologies for making COG analysis. One method was developed originally by Dr. Joe Strange (1996) and his definition of COG is still used as a fulcrum in Joint Publication 5-0 (JP 5-0) Joint Operation Planning in the U.S. He defines three sub-components of COG such as Critical Capability (CC), Critical Requirement (CR), and Critical Vulnerability (CV). According to him, there can be different COGs at separate levels. An objective is always linked to a COG, however; both of them should be nested. At the strategic level, a COG could be a military force, an alliance, political or military leaders, a set of critical capabilities or functions, or national will. The model is illustrated in Figure 1 below.

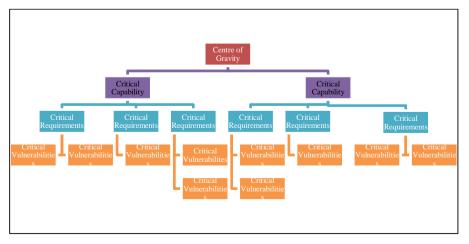


Figure-1. Strange's COG Analysis (Source: Anding, 2007, p.7)

The other method is progressed by Colonel Dale Eikmeier (2007) while an instructor at the U.S. Army War College. This method defines COG by analyzing through ends, ways, and means. In his method, initially, ways and means are identified to understand the CCs, and later COG is determined by selecting from the list of means, which has the inherent capability to perform the way. This model is depicted in Figure 2 as shown below.

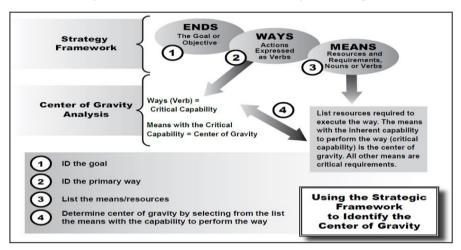


Figure-2. Eikmeier's Model (Source: Kayser, 2013, p.8)

According to Kayser (2013, p.8), even though both methods differentiate analytically, they completely reach the same conclusion providing the original assumptions are consistent. Nevertheless, he articulates that the main deficiency of both methods is focusing only on military factors while neglecting social and economic impacts. To prevent this, he recommends applying business principles for competition, and he states that there are also other analytical tools such as SWOT Analysis (Benzaghta et. al., 2021) and Porter's Five Forces Model (1979). However, instead of utilizing these different methods, including the social and economic factors in COG analysis makes sense. Even though Clausewitz (2003, p.75) described war as a duel between two rivals, this does not mean that war is like a business game. Updating COG analysis with the inclusion of social, economic, and other factors can be efficient. Therefore, in this study, COG analysis is chosen as an analytical instrument to understand the CCs, CRs, and CVs of terrorist organizations.

Echevarria's concept is predicated on two crucial points. First off, the COG idea is only applicable in situations where the enemy's forces and the area

they control share a certain degree of unity, connection, or dependency. The degree of connection, or overall unity, that the enemy's forces possess will therefore determine the kind and quantity of centers of gravity that the enemy possesses. Secondly, the item that causes the forces to be concentrated is what Clausewitz means when he states that the center of gravity is *"where the forces are most concentrated"*. Clausewitz's military COG is important, just like it is in the mechanical sciences. As a result, fighting forces frequently gather there and occasionally even emanate from it (Echevarria, 2003).

Echevarria's (2002, p.35) interpretation is significant in COG analysis. He scrutinized the original work of Clausewitz and interpreted COG as a focal point. Furthermore, physical COG and Clausewitz's COG are approximately similar according to him. First and foremost, it is essential to decide whether the type of conflict is proper to analyze and attack COG. Second, it is crucial to examine ontologically whether we can accept this system as a whole and whether there is any possibility of defeating one single system by attacking just the main point. Third, it is necessary to determine the fulcrum that holds the system together.

Even though Echevarria's approach to COG seems contemporary, indeed, there is no discrepancy among Echevarria's, Strange's, and Eikmeier's points of view. Epistemologically, all approaches are based on experience obtained in recent wars. Ontologically, they all regard the whole system in a mechanical way of understanding. Even though methodologically they are not similar, in essence, they all have highlighted the importance of critical capabilities that construct the core of threat. To sum up, all approaches serve the same purpose.

The last point before making a COG analysis is whether this approach is currently applicable in today's chaotic and asymmetric conflict environment. Terrorist groups do not use the same tactics, techniques, and procedures (TTPs) as military organizations. Additionally identifying their COG is a very formidable process, because terrorist groups have flexible strategies, are not bound to conventional rules of engagement, and are not obliged to comply with any humanitarian law. Kelly (2006: 3) asked the same research question and examined whether it is possible to execute COG analysis in an asymmetric environment. Kelly (2006, pp.57-59) concluded that COG is applicable in case of determining the nature of conflict, assessing whether a foe's structure or network performs as a single unit, finding the elements that keep the terrorists together, not applying the conventional concept, identifying gaps and connections exist in the structure and thinking on reassessing the COG. He stated that attacking COG simultaneously and continuously enhances the chance of achievement against asymmetric threats like terrorist organizations. Bird (2008, p.47) stated that the core of the operational and strategical level planning approach has been the COG analysis. In one of the recent studies, Meyer (2022, p.9) concluded that the comparison of several studies offers a comprehensive "keyword" overview of the analysis, but it also simplifies the theories, making COG an applicable methodology rather than a replacement for the full-text theories in today's continuously changing and chaotic conflict environment.

2.2. Critical Capabilities, Requirements and Vulnerabilities of Terrorist Organizations: A Short Review of Literature

There are mainly three different kinds of COG analysis approaches. Meyer (2022, pp.1-27) made a comparative analysis of the main three approaches and revealed other three approaches belong to Warden (1995), Vego (2007), and Barfoed (2018). He concluded that even though the term COG is polluted with teleological, ontological, and methodological aspects, all types are doctrinally applicable within a comprehensive approach.

Strange's (1996) approach is based on three sub-components, which are enumerated as CC, CR, and CV. CC is contextually the main capability of the COG (Meyer, 2022, p.19) and primary ability (Reilly, 2002). According to Strange (1996), CR is the requirements, sources, and means for a CC to be completely operative. CRs are scrutinized and investigated to explore CVs, which can be neutralized, exploited, defeated, and destroyed by the COG of threat. Reilly (2002, p.32) defined the CV as the deficiencies belonging to the threat that is open and vulnerable to attack to achieve decisive results.

In the literature, most studies are made in the USA and executed tto illuminate the COG of al-Qaeda after 9/11. According to the key findings of previous studies about the COG of terror organizations (see Annex A), all the scholars assume that the ideology is the COG of terror organizations. The other catalyst characteristics like financial support, network, and leadership are defined as CCs. While two of aforementioned studies highlighted CRs, only one of them stated CVs. Additionally, two scholars consider haven and

international banking systems as CRs, while the other authors accept them as CVs.

Despite the differences, it is frankly seen that most of the terms relevant to COG, CC, CR, and CV are the same. However, the main deficiency while defining COG is that all neglect the characteristics of COG, which are emphasized by Schweitzer (2003), and additionally disregard Kelly's (2006, p.31) findings about the application of COG analysis to asymmetric threats like terrorist organizations.

However, planners may find non-traditional centers of gravity in an operation against terrorist groups or rebels. To find acceptable measurements of effectiveness, a thorough analysis is necessary as these centers of gravity are not simply quantifiable. This procedure must be approached methodically to maintain uniformity between war planning teams and to be passed down to upcoming generations of war planners. We should include this procedure in our present war planning theory (Walker, 2005).

Understanding the relationship among COG, CCs, and CVs (i.e. vulnerable critical requirements), is a necessary analytical process to fully understanding the environment in which we may be acting. It is necessary to comprehend how both belligerents organize, battle, make decisions, and what constitutes their psychological strengths and weaknesses to identify the centers of gravity that are friendly and dangerous as well as their vital vulnerabilities. Therefore, COG is the applicable methodology for conceptualizing the complex and hybrid environment that is utilized by terrorist groups (Reilly, 2002).

In this study, Strange's (1996) COG approach is chosen because of four reasons. First, this approach was previously used in defining the COG of terrorist organizations by different scholars (see Annex A). Second, there is a little inconsistency between Strange's and Eikmeier's methodologies in terms of Echevarria's (2002, p.35) and Kayser's (2013, p.8) interpretations. Third, neglected social and economic impacts mentioned by Kayser (2013, p.8) in COG analysis can easily be transfered into the template of Strange's model. And finally, as Meyer (2022, p.17) articulated COG analysis is not an obsolete analytical tool when the other methodologies are concerned.

The first limitation of this research is bound to the sources that are analyzed. Second, even though there are other COG analysis methodologies, Strange's (1996) method is accepted as the best tool to evaluate COG.

3. HYPOTHESIS

COG analysis is not an old fashioned analytical tool and can be applied to asymmetric threats like terrorist organizations. However, when Schweitzer's (2003: 2) and Kelly's (2006, pp.57-59) findings were reconsidered, before making a COG analysis of PKK, two hypotheses of the research are illustrated below.

 H_1 : PKK has no constant COG throughout its background. Its COG is changing according to the periods.

 H_2 : *PKK's COG is molting capability and adaptability in altering situations in life cycle evaluation.*

While it is regarded that COG is abstract at the strategic level and material in a conventional context at the operational and tactical level; this is not valid when you think about terrorist organizations. Borum (2007, pp.17-19) enumerates the root causes of terrorism as lack of democracy, failed or weak states, rapid modernization, extremist ideologies, political violence of civil wars, hegemony and inequality of power, illegitimate or corrupt governments, powerful external actors, repression by foreign actors, ethnic and religious discrimination, emerging social classes tension, the experience of social injustice, the presence of charismatic ideological leaders, triggering events, cycles of revenge, and profitable criminal activities to finance terrorism. As it is seen there are both material and abstract items in the root causes of terrorism. It may change according to the interests of terrorists. Therefore, it is assumed that PKK's COG can be both abstract and material at the strategic level.

4. PKK'S CENTRE OF GRAVITY ANALYSIS

Even though some scholars mentioned the dates between 1973 and 1978 as an inauguration of this terrorist organization (Criss, 1995, p.20), PKK was established on 27 November 1978. This date is also accepted as the first congress (establishment) of the PKK (Ergül, 2007, p.35).

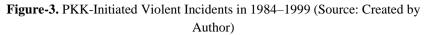
Generally, PKK's roadmap consists of four different periods. The first period is called "*Establishment* (1978-1983)", in which PKK decided to expand to the East and Southeast Regions of Türkiye, and the first organizational activities, such as the preparation of the Party Program and Manifesto were executed. The second period is called "*Long-Term People's War* (1983-1993)", in which PKK used violence to instill fear, especially in

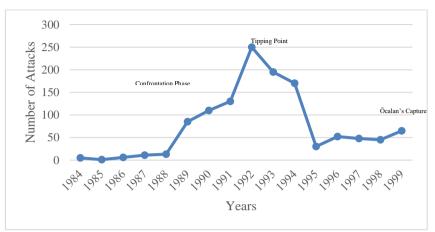
the Kurdish ethnicities in Türkiye (Masullo & O'Connor, 2020). The third period labeled as "Resolution (1993-2010)", started with the first so-called unilateral ceasefire process in 1993 and continued until 2010. Albeit, in this period PKK, construct a model, which is based on transferring the use of conflict as an instrument from rural areas to city centers (Haner et.al., 2019). Furthermore, during this period on 16 February 1999, one of the milestones of PKK was the catching of the leader. Abdullah Öcalan. After 2010, PKK wanted to benefit from the situation in Iraq. After the Second Gulf War, the delayed parliamentary elections in Iraq and the long duration of the formation of the government after the elections raised concerns about the future of Iraq. Therefore, PKK started in June 2010 a new period, called as "Revolutionary People's War (2010-2022)", in line to establish Democratic Autonomy and a Confederal system (Akkaya and Jongerden, 2012). In this period, the offshoots of PKK named as PYD/YPG improved the relationships with external actors like the US and UK to take part in the struggle in Syria against Daesh, while Russia and Iran did not oppose these activities (Sahin and Irdem, 2017, pp.23-30).

4.1. The Changing COG of PKK

In the aforementioned four different periods, PKK has continuously changed its strategy, ideology, and perspective. In the first period, PKK's main aim was to construct the organization. The leader of the PKK used his charisma to insert ideology and collect more people. For example, Ergül (2007, p.40) articulated that Öcalan had great popularity in university during these years because of being a member of social and activity groups. Therefore, in this period the COG of PKK is the leadership of the founder of PKK. Furthermore, his sociability can be counted as CC.

In the second period, PKK formed armed terrorists and raised the number of attacks against Turkish Security Forces. In epitome, PKK mainly focused on the operational field in this period. As illustrated in Figure 3, PKK escalated the usage of violence against innocent people to instill fear and dominated the Eastern parts of Türkiye in 1992 (Masullo and O'Connor, 2020).

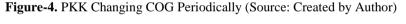


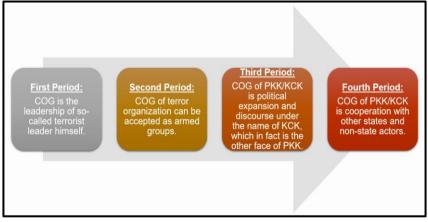


The neutrality policy of Türkiye in the Iran-Iraq War and the power vacuum in Iraq after the First Gulf War created a proper environment for the terrorist organization (Çanci and Şen, 2012, p.227) to augment attacks. Additionally, at that time Syria condoned PKK to construct camps on its territory (Radu, 2001, p.47), and with the help of this situation, PKK reached its most crowded capacity. Therefore, in this period the COG of PKK can be accepted as armed groups. The ability to act in rural areas and regions near the southern border of Türkiye should also be considered as CCs in the second period.

After 1993, there was a drop in the number of PKK attacks, because the strategy of the Turkish Armed Forces changed from protection to prevention, and some consecutive successive cross-border operations were executed in the northern part of Iraq from 1992 to 2000. This situation forced PKK to change its focal point from the operational to the political side by applying the indirect approach to getting in trouble with Türkiye by enforcing political compromise in the international arena (Kocher, 2002, p.2). Furthermore, the capture of Öcalan caused the collapse and new leadership struggle within the terror organization. PKK also comprehended that it would not achieve its goals only with armed struggle. While keeping the armed groups in rural areas, and going on applying simple, affordable techniques such as sabotage, bomb attacks, and explosives; PKK began to seek a base for itself on the political scene. Therefore, it is assumed that the COG of PKK in the third period is political expansion and discourse under the name of KCK, which is the other face of PKK.

The inauguration of the fourth period overlapped with the Civil War's beginning date in Syria. Even though the conflicts in Syria are based on Assad's regime corruption, ethnicity, social injustice, and oppressive administration, the main reason is the jumping of the "Arab Spring" into the region (Özdemir, 2016, p.87). After the Syrian regime withdrew from the Kurdish areas in northern Syria in 2012, the power vacuum and gap in the administration provided an environment for PKK to indwell and collaborate with other states. Especially, PKK's struggle against Daesh in Ayn-El-Arab brought great sympathy in the eyes of Coalition Forces (Sahin and Irdem, 2017, p.27). In this period, the key terms were cooperation and collaboration. While PKK found a chance to enhance its armed groups' capacity, it also gained weapons, ammunition, and vehicles used in a conventional war. It executed drills with the other states in the region, insomuch that terrorist members were educated by the Coalition Forces (Pusane, 2018, p.79; AA, 2022). So, when it is considered, the COG of PKK/KCK is cooperation with other states and non-state actors. The logistic support, which is given to increase the acting capability of the terrorist organization, can be regarded as CCs.





In the first hypothesis (Figure 4), it is presumed that PKK's COG has been changed at intervals. It was explained earlier that COG is not constant and can be changed during the phases of conventional war. Despite the differences between terrorism and conventional war, symmetric and asymmetric methods can be used in both. To stay alive, terrorists must adapt themselves to the changing habitat of conflict. Therefore, instead of stability, terror organizations chose mobility. This mobility also causes the altering of COG. As highlighted above, PKK, from the inauguration to now, has switched its COG.

4.2. Molting capability and adaptability of PKK

PKK, when compared with other terrorist organizations, has no constant backbone. This means that PKK acts according to its interests and contacts with many stakeholders without considering their ideologies, beliefs, or background. In literature, terrorist organizations' main pillars are enumerated as ideology (Dalton and Asal, 2011, p.805), network (Xu et. al, 2017, p.275), financing (Freeman, 2011, p.464), leadership (Hoffmann, 2017, p.7), and state harboring/support (Ganor, 2002, p.25). Therefore, demonstrating that PKK has changing ideology, a weak and heterarchical³ network instead of a strong and hierarchical one, multi-financing techniques, multi-leadership struggle in an organization, and most importantly state harboring/support, will verify the second hypothesis.

The first item is ideology. PKK had a Marxist/Leninist ideology when it is inaugurated. Until the 1990s, PKK kept this ideology; however, since that date began to transform its ideology to a new one, which is defined as an anti-capitalist, anti-industrialist, women emancipatory and ecologist "democratic confederalism" framework (Yarkin, 2015, p.32). Although PKK still regards itself as anti-capitalist, its relations with capitalist states have been accelerating (Parlar Dal, 2016, p.1401). Even though PKK defines itself as a woman's rights advocate, the number of sexually abused women in PKK cannot tell the same. According to Bayraklı and Alkanat (2021, p.132), women are often exposed to sexual abuse in PKK. PKK abuses women and children by coercing or misleading them into joining its cadres, in addition to harming them directly through its acts (US, 2022, p.296). Furkan and Wibisono (2020) articulated that a former PKK female terrorist testified in court that a male PKK member had physically and verbally abused her. Khelghat-Doost and Arıboğan (2023, p.170) also stated that children, who have joined groups such as PKK, were raped and sexually abused.

³ A heterarchy is a system of organization where the elements of the organization are unranked (nonhierarchical) or where they possess the potential to be ranked a number of different ways.

The second item is the network. Even though PKK leaders claim that they are always with their subordinates, the findings show the opposite. For instance, Ozmen (2018, p.36) made the social network analysis of PKK partially and concluded that the planning network is denser than the operational and recruiting networks, more importantly, all these three networks are more heterarchical than hierarchical (Figure 5). Ballinger (2022, p.32) found that high-status terrorists have high togetherness centrality while they generally have a poor connection with low-status terrorists by using data from 19,115 obituary images. Therefore, it is obvious that the organizational network of PKK is weak and heterarchical.

The third item is financing. PKK's main financing techniques are trafficking (drug, human, arm, tobacco, oil), foreign sources, so-called taxation, and other illegal incomes. Freedman and Levitt (2009: 2) articulated that this organization controls 80% of the drug market in Europe. According to them, PKK mostly has used the Balkan Route, which ranges from respectively Afghanistan, Iran, and Türkiye to Southern Europe. Roth and Sever (2007, p.904) found that extortion and kidnapping are also utilized as financial sources by PKK. They stated that PKK also has applied to pay ransom for freeing from extortion and kidnapping as a rational choice to survive and maintain financial resources. Money laundering is also another technique for PKK to supply financing (Roth and Sever, 2007, p.905). Roth and Sever (2008, p.73) claim that supporters of PKK in Europe have played a crucial role in funding activities. PKK has taxed the drug traffickers and individual cells working the cross border, and vehicles that have been working legally for many years. These examples clarify that PKK has used many different techniques and tactics for financing.

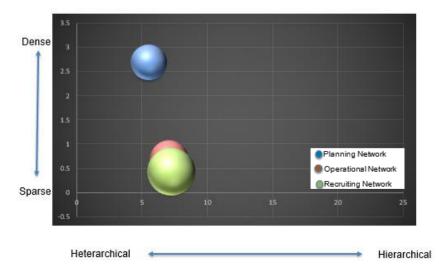


Figure-5. Network Topography of PKK/KCK (Source: Ozmen, 2018, p.36).

Centre of Gravity (COG) Analysis of Terrorist Organizations: PKK Case Oğuzhan PEHLİVAN

Until the capture of Öcalan, he was the only leader of the terrorist organization. But then, the struggle for the leadership of PKK began among the other senior-level administrators and is still ongoing. Radu (2001, p.47) stated that after the arrest of Öcalan, rifts emerged throughout the whole organization that threatened its ongoing presence. According to Ballinger (2022, p.5), there are 15 dominant people, who can be regarded in high-level administrative positions. These findings illustrate the struggle for leadership in PKK and reveal the fact that there is currently more than one leader simultaneously in terrorist organizations. Furthermore, the multitude of leaders affects the consensus in a terrorist organization and constitutes an obstacle for leadership, which hence cannot be considered a COG currently.

Foreign state support, as a life vein feature, is very vital for every terrorist organization. Even though terrorist organizations generally try to be invisible as much as they can, they need a physical domain to train new recruitments, logistic support, and ideological education. Therefore, PKK has always searched for new places to fulfill its requirements since its inauguration. In the first stage, PKK used the rural areas in Türkiye to accommodate its camps. However, the effective operations of the Turkish Armed and Security Forces could not permit to sustain its capability within the borders of Türkiye (Selvi, 2003, p.37).

After that, PKK transfers its camps to Syria, and Beqaa Valley near to borders of Lebanon and Israel. The political pressure of Türkiye on Syria to discharge the camps and extradite Öcalan, finalized with the deportation from Syria and the closing of terrorist camps (Sever, 2001, p.91). Later, PKK turned its face to Iraq, which was in a power vacuum on that date. The region selected by PKK is very near the Iran border of Iraq, and that's why this settlement provides an additional advantage for PKK to construct a relationship with Iran. On the tip of the iceberg, Iran seemed to suffer from the PKK's attacks, but mostly Iran condoned the activities of PJAK, which is one of the extensions of PKK (Noi, 2012, p.23).

Until 2010, Türkiye's military strategies were likely to have a huge effect on the PKK. However, Türkiye knew well that it was nearly unfeasible for the central Iraqi government in Baghdad to take real action against the PKK, and it was highly unlikely that the Kurdish regional government would take action under the current circumstances. So, Türkiye tried to find some political solutions and searched for international comprehensive solutions for PKK (Flanagan and Brannen, 2007, p.9).

The Syrian Civil War and Arab Spring overthrew the government of Syria in 2011, and after that incident, the power vacuum in the area opened the region to the exploitation of many terrorist organizations such as Daesh and PKK. PKK transferred some of its camps and manpower to Syria especially to physically control some critical infrastructures such as oil wells and water resources in Syria (Netjes and van Veen, 2021). Furthermore, existing in Syria and Iraq ensures PKK's cooperation with other states like the US⁴, UK⁵, France⁶, and Russia⁷. While the aforementioned nation-states have regarded officially the extensions of PKK as a non-terrorist organization, they have neglected and ignored the connections of PKK with these offshoots (Parlar Dal, 2016, p.1413).

When we consider all the main pillars of the PKK, it is clear that PKK always changes them according to its interests and relations. As it is assumed in the second hypothesis of this study, PKK has improved new habitats, techniques, and tactics and this transmutation capability of PKK like a chameleon is the real face of the terrorist organization. It has no constant ideology, network, financing, leadership, or state sponsoring. Therefore *molting capability and adaptability in every situation* are assumed as the COG of the PKK in life cycle evaluation, and CCs, CRs, and CVs are the ones illustrated in Table 1.

⁴ According to Gunter (2022, p.32), the US has been aiding the PKK's offshoot Syrian Kurdish PYD/YPG for many years.

⁵ Akartuna & Thornton (2021, p.5) noted that PKK-affiliated groups are effective especially in the UK holding many sympathetic activities for getting the support of policymakers and the British trade union, while PKK is represented by numerous legally formed sympathetic community groups across Europe.

⁶ Radu (2018) highlighted that especially leftist parties in France support the activities of PKK.

⁷ Cornell (2018) mentioned that Russia used PKK as leverage against Türkiye for deterring probable Turkish support especially to Caucasian region.

Table-1. Centre of Gravity Analysis of PKK (Source: Created by	Author)
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Terrorist Organization Aim/Objectives: To stay alive and effective.				
<u>Centre of Gravity:</u> Molting capability and adaptability in altering situations.	Critical Capabilities: No ideology (CC1) Heterarchical network (CC2) Multi-financing domain (CC3)			
Critical Vulnerabilities:	Foreign state support capacity (CC4) Critical Requirements:			
Ideological mentor (CV1.1.1) Politic advisor (CV1.2.1) Communication links (CV2.1.1) Trustworthy recruitment mechanism (CV2.2.1)	The intelligence to write adaptive and transformative ideology (CR1.1) The ability to observe international affairs (CR1.2) The usage of media (CR2.1)			
Electronic transfers (CR3.1.1) Traces left behind (CR3.2.1) Social network (CV3.3.1) Being both politician and terrorist of the same people (CV4.1.1) The vague of its status legally in the international arena (CV4.2.1)	Cell structure (CR2.2) The international banking system and cryptocurrency (CR3.1) The connection with drug, human, weapon and etc. trafficking (CR3.2) The illegal taxation and connection with pseudo- legal establishments across the World (CR3.3) Political offshoot (CR4.1)			
	The need for national/international/ transnational legal ground (CR4.2)			

To sustain adaptive ideology and strategy needs a mentor or mentors backstage. Even though the captured leader of PKK is in jail currently, it is assumed that his impact on the PKK terrorist organization and liaison with other executives have been ongoing. Additionally, probably, there are also some other mentors, who aid in the construction of the transformation of PKK's ideology. The first step should be to collect intelligence to find them all and take some protective measures to prevent PKK's transformation by concealing its masked ideology. Furthermore, it is evaluated that political mentors of PKK and their probable counterparts in other harboring states analyze systematically and thoroughly the power balance in international relations. Another step must be to detect these communication networks and with a holistic approach put political pressure on states by revealing this network. Additionally, more smart power usage supported by close mutual relationships with states and international organizations will likely mitigate the PKK's effect in favor of Türkiye.

Currently, cutting off the communication lines of PKK with other states has not seemed reasonable since it is not possible to apply in practice. However, there are many ways to indicate the relations and network of terrorists by using social media analysis, artificial intelligence, and innovative methodologies. Additionally, constructing mutual а understanding and common establishments to monitor terrorist activities may enhance the quality of the struggle against terrorism. These methods also pave the way to ease finding the traces of terrorists left behind. To provide a political ground to reach their goals, PKK will always contact some political extensions. Meticulous analysis of these relations by sophisticated technology should deliver intelligence using many opportunities for capturing terrorists.

PKK has continuously been searching for a legal base and political interlocutor. Its main aim is to point itself as a legal organization by using different titles and names. With this aim, PKK advertises and markets itself sometimes as an anti-terrorist or freedom fighter establishment. Türkiye must never allow these kinds of attempts in the international arena, and keep in touch with other countries and international organizations to defend its rights in the legal aspect. Also, battlefield evidence, data collection about the exploitations and abuse of children and women from Syria and Iraq, and information warfare are the basic instruments of Türkiye to illustrate the violence that was conducted by PKK.

5. CONCLUSION

COG is applicable and not obsolete. Additionally, while it assists the requirement of military planning in conventional war, it can also be adapted to the needs of asymmetric and unconventional war globally fighting against terrorism.

It is assumed that updating the COG analysis of terrorist organizations requires evaluating the characteristics, which are emphasized by Schweitzer (2003, p.2), and applications that are highlighted by Kelly (2006, pp.57-59) for COG analysis of asymmetric threats like terrorist organizations. Therefore, both studies are crucial before making a COG analysis of any terrorist organization. In this study, two ideas are taken into consideration.

First, it is accepted that COG is changeable from time to time like in conventional COG analysis variation phase to phase. Second, unlike conventional war COG analysis, the terrorist organization COG can be both abstract and material assets.

When we examine the hypothesis, the first hypothesis is verified. As mentioned before, terrorist organizations' main pillars are enumerated as *ideology* (Dalton and Asal, 2011, p.805), *network* (Xu et. al, 2017, p.275), *financing* (Freeman, 2011, p.464), *leadership* (Hoffmann, 2017, p.7), and *state harboring/support* (Ganor, 2002, p.25). The background of the PKK is scrutinized and as a result, it is understood that on its roadmap, PKK's COG is varied according to the interest, region, and network. The founder of PKK himself (first period), armed groups and their loyalty to the ideology narrated by the so-called leadership of the PKK (second period), political expansion and discourse that stems from its network (third period), and cooperation with other states and non-state actors that provides the financial support to the PKK are found as the COG in each period. It indicates that PKK's COG has been altering in its periodic background.

The second hypothesis is also confirmed. PKK has an umbrella COG that covers and explains why it continues to live and there is more than one COG in its background. To endorse the second hypothesis, first, the main pillars of the PKK were scrutinized. The items constructing the pillars of terrorist organizations are revealed as ideology, network, financing, leadership, and foreign state support capacity. Finally, it is found that PKK has a changing ideology, a heterarchical network, many leaders at the same time, many diversified methods for financing, and strong foreign state support. This transmutation paves the way for PKK to stay alive in chaotic and non-secure environments. Therefore, it is assumed that the PKK's COG is its molting capability and adaptability in altering situations in its life cycle.

The article makes a significant and original contribution to the literature by applying COG analysis to the PKK, integrating social ecology theory, and presenting a dynamic perspective on COG. As discussed in the previous sections, COG provides a planner more holistic and comprehensive approach. To enlighten the CCs, CVs, and CRs depicted in Table 1 will enhance the footprint of Türkiye's fight against terrorism, underpin the cost-effective struggle, and be exemplary for other countries.

Subsequently, continuously altering ideology, heterarchical network, multi-financing domain, and foreign state support capacity are the critical capabilities of PKK. It is clear that while Türkiye is searching for new collaboration methods with other states, foreign support will not be interrupted in the near term and the problem will remain unsolved without determining a common struggle policy with other countries. However, this does not mean that Türkive should give up its struggle against PKK. Every option for developing further relations with the states in the region must be reviewed. The latest terror incidents such as explosions, in which civilians are injured and dead, reveal that terror organizations tend to reject and deny their involvement. The previous "Strategic Model of Terrorism" has also changed in recent years (Abrahms and Mroszczyk, 2022a, p.17). According to both scholars, contrary to terrorism theory, attacks on civilians have been found to reduce the likelihood of the perpetrating group obtaining government concessions. While the ex-targets of terrorist organizations generally focus on instilling fear in ordinary people, they are now targeting governments rather than civilians, which depress credit claiming rates (Abrahms and Mroszczyk, 2022b). Therefore, Türkiye should enhance proactive measures, foster predictive intelligence and bolster cooperation in international relations.

The first limitation of this research is bound to the sources that are analyzed. Second, even though there are other COG analysis methodologies, Strange's (1996) method is accepted as the best tool to evaluate COG. Even though former studies claimed the reverse, different conclusions are likely to be obtained with other approaches. For future studies, I recommend using other COG analysis methods and considering the other characteristics and applications according to the features, region, and ideologies of terrorist organizations to reach likely different conclusions.

The new internet-based illegal financing techniques, cryptocurrencies, the relationship between PKK financing and fraud, and the surplus of various actors should be observed thoroughly. Pooling and sharing of expertise, comprehensive agreements on tracking financial assets, and establishing monitoring institutions on a global scale will also mitigate the financing of PKK and other terrorist organizations.

Measurements are vitally crucial to the commander of operations and decision-makers. Any senior executive in the corporate world will tell you, *"If you can't measure it, you can't manage it"*. Since the measurements will

determine the course of action, these metrics must be properly chosen to match the approach to the goal. COG is a useful toolkit that opens the door to examining the enemies' essential capabilities, weaknesses, and needs. But measuring progress in the battle against terrorism is not the only way to do this. To accomplish political objectives, planners still need to develop winning plans. But how will they be able to tell whether the plan is working without metrics? By incorporating metrics into the planning process, planners can effectively address these issues and develop plans that outmaneuver Türkiye's adversaries.

In a nutshell, when we consider the emerging terrorism threats, they are very different, not stable, severe, rough to identify, not long-lived, act adhoc but then swiftly turn into another type and unpredictable. Terrorist organizations need always to go one step further to stay alive. The active response is not adequate, therefore there is a necessity to be proactive. Unfortunately, while terrorist organizations become "learning organizations" and adapt themselves to new situations, the states sometimes can be slow because of the legal aspect and bureaucratic obstacles. However, states' enforcement capacities, legitimate authority, access to the network in economic, financial, and social easily, intelligence and technological capacity, education, and training capability, human power, and expertise enhance the strength of the struggle against terrorism. Only the combined use of soft, hard, and smart power will guide the endeavors of countries.

Annex A. COG Analysis of Terrorist Organizations or Lone Wolf (TO/LW) in				
Literature (Source: Created by Author)				

Reference	Citation	MJOL	500 CO	ccs	CRs	CVs
Reilly, J. (2002)	9	al-Qaeda	Radical Fundamentalist Ideology	*Global Network *Financial Basis *State Harboring *Fundamentalist Sheiks	*Info technology *Globalization *Muslim diaspora *International Banking System *Hawalas *Safe Haven *Media Access *Moderate Arab Sympathizers	*Communication links *Increased autonomy of network *Electronic transfers * Businesses * True Islam * True Islam * Honest Muslims
Schweitzer, J. P. (2003)	8	al-Qaeda	Ideology	*Leadership *Economic support *State sponsorship *Network *Terrorist cells		
Davis, S. W. (2003)	5	al-Qaeda	The Jihadist Ideology	*Financial resources *C3 *Global mobility *Sanctuary/safe haven *Leadership		
Ethridge Jr, J. E. (2004)	1	al-Qaeda	Religious Fundmentalism	*State support *Popular support *Employ forces against global security *Funding	*Weapons *Safe havens and training camps *Intelligence *Fake identifications and travel documents regimes *Visible achievements against Russia and US *FOM *Cellular organization *Global communication *Non-state identity *Wealth of the leader *Cover organizations * International banking system	

Keppler, (2005)	T.	5	al-Qaeda	Fundamentalist ideology	*Intense hatred fear against US *Information warfare *Ability to manipulate *Orchestrate large- scale attacks *Logical support	
Dena, (2018)	C.	-	Daesh/ISIS	Hawala ⁸		
Ganor, (2021)	B.	3	Lone Wolf	Ideological, personal and psychological background of a person		

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⁸ An additional or parallel remittance mechanism is called Hawala. It functions independently of or in conjunction with traditional banking and financial channels. It was created in India prior to the adoption of Western banking techniques, and it is presently a significant global remittance system (Jost and Sandhu, 2000).

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