THE HAQQANI NETWORK: AN UNDERESTIMATED FORCE?

by

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ABSTRACT

SHELBY DAVIS. The Haqqani Network: An Underestimated Force?
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The catastrophic events of September 11, 2001 and the beheading of James Foley on August 19, 2014 were the tipping points in the United States' infamous war on terrorism. The countless tragedies and years of war have demonstrated the unprecedented brutality of the terrorist organizations Al-Qaeda and the Islamic State, who have become household names for Americans. However, despite their notoriety, these two groups may not be the most lethal nor the most strategically capable of extremist organizations. Rather, hidden by mountainous Afghanistan, the Haqqani Network has established itself as a competent enemy for five decades now, all while evading the general public's eye. Despite its persistent presence in Afghanistan since the Soviet-Afghan War and the extensive qualitative literature discussing the breadth of its capabilities and reach, the Haqqani Network's potential lethality does not appear to be reflected in its respective quantitative data. This study explores the potential underestimations of the Haqqani Network's breadth of attacks in Afghanistan within the Global Terrorism Database through association rules mining and two Naive Bayes classifiers. Since the extremist group's creation, the Global Terrorism Database has only attributed 84 attacks within Afghanistan to the Haqqani Network. This study will therefore explore whether or not there is reason to suspect that the GTD has severely undercounted the Haqqani Network's capabilities in Afghanistan through machine learning.

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GLOSSARY OF ABBREVIATIONS

US	United States
AQ	Al-Qaeda
IS	Islamic State
HQN	Haqqani Network
GTD	Global Terrorism Database
CIA	Central Intelligence Agency
FATA	Federally Administered Tribal Areas
SA	Spectacular Attacks (HQN signature attacks)
IED	Improvised Explosive Device
KAN	Kabul Attack Network
LeT	Lashkar-e-Taiba
HiG	Hizb-i-Islami Gulbuddin
IMU	Islamic Movement of Uzbekistan
JeM	Jaish-e-Mohammed
LeJ	Lashkar-e-Jhangvi
TTP	Tehrik-i-Taliban Pakistan
ARM	Association Rules Mining

INTRODUCTION

The catastrophic events of September 11, 2001 and the beheading of James Foley on August 19, 2014 were tipping points in the United States' (US) infamous war on terrorism. The countless tragedies and years of war have demonstrated the unprecedented brutality of the terrorist organizations Al Qaeda (AQ) and the Islamic State (IS), who have become household names for Americans. However, despite their notoriety, these two groups may not be the most lethal nor the most strategically capable of extremist organizations. Rather, hidden by mountainous Afghanistan, the Haqqani Network (HQN) has established itself as a competent enemy for five decades now, all while evading the general public's eye. Despite its persistent presence in Afghanistan since the Soviet-Afghan War and the extensive qualitative literature discussing the breadth of its capabilities and reach, the HQN's potential lethality does not appear to be reflected in its respective quantitative data. This study explores the potential underestimations of the HQN's breadth of attacks in Afghanistan through association rules mining and two Naive Bayes classifiers. Since the extremist group's creation, the Global Terrorism Database (GTD) has only attributed 84 attacks within Afghanistan to the HQN (GTD 2019). This study will thus explore whether or not there is reason to suspect that the GTD has severely undercounted the HNQ's capabilities in Afghanistan.[1]

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[1] Due to the HQN's presence on both sides of the Durand Line, it could also be useful to run similar tests on the GTD's Pakistani data in order to see if there is an undercount of HQN terrorist attacks in Pakistan as well. However, the dynamics between Pakistan, the HQN, and other terrorist groups within the region are well beyond the scope of this paper.

LITERATURE REVIEW

The Soviet-Afghan War and the Afghan Mujahideen

Rooted in the Soviet-Afghan War, members of the Afghan mujahideen, or the "guerilla campaign of anti-communist resistance in Afghanistan," were funded by the US, among other countries such as Saudi Arabia, Pakistan, and China, to fend off the Soviet invasion in Afghanistan (Brown & Rassler, 2013, p. 28). This allowed for the US to strike at the "foundations of Soviet power" without directly becoming involved in the conflict (Maley, 2010, p. 867). During the war, it was estimated that the US and partners funneled approximately $12 billion of aid to support the mujahideen's anti-Soviet insurgency through Pakistan (Brown & Rassler, 2013, p. 59). In addition, a former Central Intelligence Agency (CIA) official stated that, by the mid-1980s, the CIA alone was sending upwards of 60,000 tons of weapons and supplies to the mujahideen fighters every year (Brown & Rassler, 2013, p. 59). This strategy to employ the mujahideen in their fight against communism in Afghanistan eventually proved to be effective: the mujahideen were able to hold off troops until the Soviet Union declared that it would be withdrawing from the "bleeding wound" that was Afghanistan (Maley, 2010, p. 867). However, the end of the war brought an end to the symbiotic relationship between the US and the Afghan mujahideen, and the Afghan mujahideen fractured into multiple sects of terrorist groups recognized today, such as Al Qaeda, the Taliban, and the HQN. The HQN's wrath would eventually shift towards the US: the new foreign entity attempting to assert control and influence over Afghanistan.

Rise of Jalaluddin Haqqani and the Haqqani Network

It was during and after the Soviet-Afghan War that members of the Afghan mujahideen's anti-Soviet resistance began to consolidate under Jalaluddin Haqqani, a commander of the

mujahideen and the eventual founder of the HQN. Jalaluddin Haqqani was born in the Zadran district of Paktia Province, Afghanistan, belonging to the Pashtun Zadran tribe (Brown & Rassler, 2013, p. 28). Pashtun tribes are "considered to be the fiercest" of tribes along the Durand Line due to their adherence to the moral code of Pashtunwali (Dressler, 2010, p. 17). Pashtunwali is a strict code that ensures traditional ways of living and puts a significant emphasis on vengeance and honor, which would later inspire Afghans to push back against the Soviet invasion of their country.

Jalaluddin proved himself a capable and vicious commander fighting against the Soviets. During the war, former Congressman Charlie Wilson, who helped fundraise for the Afghan mujahideen, referred to Jalaluddin as "goodness personified" and a US intelligence official claimed that Jalaluddin "could kill Russians like you wouldn't believe," among other comments regarding his role as commander (Dresser, 2012, p. 8). These interactions with US officials and successes on the battlefield allotted Jalaluddin "most favored" status with the anti-Soviet countries' intelligence agencies, allowing him unprecedented access to war materials sent to Afghanistan's front lines (Dressler, 2012, p. 8). Jalaluddin used his newfound position to his advantage: He launched fundraising offices in the Arabian Gulf to raise money for his cause from affluent ideological supporters (Maley, 2010, p. 863); He expanded recruitment, calling for foreign fighters in the war and became the first group "consistently willing to welcome large numbers of non-Afghan volunteer fighters into their ranks" (Brown & Rassler, 2013, p. 60); and he established a respected presence in both Pakistan and Afghanistan by obtaining a base of operations in North Waziristan, located in Pakistan's Federally Administered Tribal Areas (FATA), and continued constructing a plethora of training facilities on both sides of the Durand Line. Whether or not the US was aware of Jalaluddin Haqqani and the HQN's actions and

motivations for these actions is not clear. However, what is clear is that Jalaluddin and the HQN were able to use their temporary alliance with the US and other anti-Soviet countries to their benefit by expanding upon their illicit activities and goals whilst the US was prioritizing their fight against communism.

Fundamentals
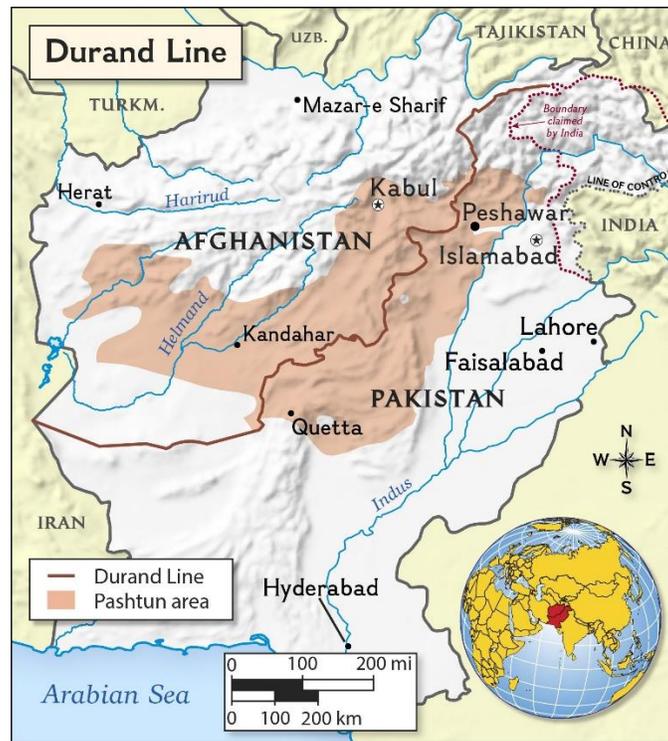
Figure 1. Map of Durand Line (National Geographic, n.d.)

The HQN is an Afghan insurgent organization that sustains access and influence on both sides of the Durand Line, which is the disputed border separating Afghanistan and Pakistan.[2] While founded by Jalaluddin Haqqani, the HQN is currently led by his son, Sirajuddin Haqqani,

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[2] An insurgency is "the organized use of subversion and violence to seize, nullify, or challenge political control of a region," and is a form of inter-state conflict (CJCS, 2020). Thus, insurgents are distinguished from terrorists because, for most insurgents, the objective is "gaining control of a population or a particular territory, including its resources" (CIA, 2012, p. 1).

following Jalaluddin's passing, which is believed to have occurred sometime in 2018. Their ideology is said to have been adopted from the Egyptian Muslim Brotherhood, which fostered anti-Western sentiments – believing "Western-inspired secularization" had "corrupted" fellow Muslims – as well as sought to expel all foreign influences in the homeland (AFPC, n.d.). Furthermore, the HQN adheres to a Sunni Islamic interpretation called Deobandi, in which it is believed that "jihad is necessary to remove Western influence from Afghanistan to attain its objectives" (Lurie, 2020, p. 2). In Islamic culture, it is thought of as a holy war that individuals are called to join. While the HQN originally formed under these political and ideological motivations, they are now thought to be equally driven by financial opportunity. It has also been suggested that the principles of Pashtunwali – vengeance and honor – may be increasingly driving the HQN, as bombing raids and drone strikes on Haqqani property has resulted in the deaths of Haqqani family members, including women and children (Ruttig, 2009). The importance of family is also seen in the network's highly centralized structure, where there are only a few key individuals at the top – most of which are relatives of Jalaluddin – and then the "decision-making becomes progressively less centralized" as it moves downwards (Peters, 2012, p. 24).

While the suspected number of militants within the HQN is difficult to approximate, it is estimated that the HQN has between 3,000 and 5,000 fighters (BCC, 2020, p. 259). The HQN is primarily occupied with regional objectives in Afghanistan, particularly in Kabul, aiming to expel foreign forces and influences, control the security environment and public perception of the Afghan government, and maintain their financial, political, and religious networks that allow them to pursue their strategic capabilities. However, the HQN maintains no interest in legitimately governing Afghanistan. In an op-ed published by the *New York Times*, Sirajuddin

Haqqani noted that "the withdrawal of foreign forces has been [the HQN's] first and foremost demand" as well as that it will be expected that other countries will respect Afghanistan's sovereignty following the US's withdrawal from the country (Haqqani, 2020, n.d.). The network participates in asymmetric and guerilla warfare, conducts signature attacks – referred to as "spectacular attacks (SA)" – and uses suicide-bombing missions to further their goals (Ruttig, 2012). They were the first organization in Afghanistan to regularly carry out suicide bombing missions, capitalizing on the major effects such attacks had on the Afghan public: bombing missions attack infrastructure that is symbolic of development, including schools, businesses, and roads in order to squash locals' hopes for improved conditions; allow the HQN to attack infrastructure and individuals symbolizing power and authority in Afghanistan in further attempts to undermine the Afghan government; and increases public paranoia and reemphasizes the idea that Afghan citizens are not fully protected by the Afghan government (Weinbaum & Babbar, 2016, p. 10).

Key Territories

Figure 2. Map of Paktia, Paktika, and Khost Province in Afghanistan (The Economist, 2008)

The HQN has secured key territories in both Afghanistan and Pakistan, although their main areas of operation are within Paktia, Paktika, and Khost Provinces. Their primary objective in obtaining territories in Afghanistan is to secure support and transit routes through key provinces and districts, particularly ones that provide direct access to Kabul to stage attacks. Kabul is a key region to the HQN, as attacking it brings them international recognition and credibility while aiding in their funding and recruitment (Dressler, 2011, p. 12). Furthermore, the HQN uses infiltration routes through Tsamkani District, which sits about 6 miles/1.6 kilometers from the Durand Line and the Pakistani town of Parachinar, serving as a major insurgent base (Ruttig, 2009). Khost City, which was conquered by Jalaluddin in 1991, provides the HQN with a route connecting Afghanistan and Pakistan through which they can smuggle weapons into key HQN strongholds (Weinbaum & Babbar, 2016, p. 2). The network also maintains infiltration routes in Khost's southern town of Terayzai, which provides a route through Bak District into Sabari District, which serves as a major pipeline for the shipment of weapons – including improvised explosive device (IED) materials – and militants, who avoid detection by hiding in bazaars, madrassas, and mosques (Dressler, 2012, p. 16).

The HQN's primary objective in securing territory in Pakistan is to ensure the availability of safe havens, particularly their sanctuaries in North Waziristan, thus allowing the network to conduct attacks in Afghanistan and cross the Durand Line into Pakistan in order to avoid persecution. They hide on Pakistani soil while remaining within reach of the Pakistani government and ISI. The HQN's main safe haven resides in Miram Shah, North Waziristan, which is located within Pakistan's FATA. This safe haven "provides space for insurgent leaders to hide out, plan, recruit, raise funds, allocate resources, train fighters, rest, and refit" as well as serves as "safe areas in which high-value individuals and materials can be protected and

allocated" (Kagan et al., 2011, p. 3). Within Miram Shah and its neighboring villages, the HQN run a "shadow government," operating tax offices, courts, recruitment centers, and training centers for recruits and suicide bombers" (Dressler, 2012, p. 14). The network also operates out of the towns of Sarai Darpa Khel and Danday Darpa Khel, which are within close proximity to the Pakistani Army's 11th Corps headquarters, (Dressler, 2012, p. 13).

It is clear that the HQN understands the importance of maintaining control zones on both sides of the Durand Line. Territory within Afghanistan allows for the network to move materials and militants into more effective positions for conducting attacks. Territory within Pakistan allows for the network to conduct attacks in Afghanistan and cross over the Durand Line into Pakistani soil, where US and Afghan forces can no longer pursue militants or conduct counterattacks without risking violating Pakistan's sovereignty. Combined, these territories provide the HQN with an ideal system of attack-and-retreat, allowing for the network to wreak havoc within Afghanistan's borders while permitting the HQN to remain sustainable as they avoid both blame and persecution in many instances by fleeing to Pakistani soil.

Financial Autonomy

The HQN has established complete financial autonomy through a plethora of both licit and illicit businesses, including construction, transport, real estate, chromite extraction, donations, fundraising, Pakistani funding, extortion, robbery, narcotics and precursor chemicals trafficking, and money laundering (Peters, 2012).[3] This financial autonomy from these sources

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[3] Chromite is "a rare earth oxide used to make stainless steel and to strengthen other alloys," is worth approximately $280/metric ton, and is of growing demand in China, India, and other countries conducting mass construction (Peters, 2012, p. 58). While mining for chromite can be a legal and legitimate business, the network has taken advantage of unregulated mining operations. Once extracted from mines, HQN smugglers "evade official transfer stations where customs inspectors work, instead using smuggling routes manned by Haqqani operatives" (Peters, 2012, p. 59).

not only allows for the proper funding of their agenda, but also allows for the HQN's funding

and support of alliances, either to further that alliance's reach or to pay that alliance to act as the

HQN's proxy force.[4] Furthermore, the HQN itself also acts as a proxy force for other terrorist

organizations and, in particular, was at one time receiving a monthly stipend from the Quetta

Shura of the Afghan Taliban for such services (Peters, 2012, p. 23).

Wide Array of Alliances

The strategic advantage of the HQN's wide array of alliances provides the HQN with

more manpower and resources through proxy forces as well as gives them access to previously

hostile or inaccessible territories. While there are difficulties in tracking which alliances are

currently still intact due to the volatile nature of terrorist organizations, it is worth noting that

Jalaluddin, Osama bin Laden, and their organizations' alliances had endured since the mid-

1980s, through the aftermath of the September 11th, 2001 terrorist attacks on the World Trade

Center. Even following Osama bin Laden's death in 2011, the alliance between AQ and HQN

endured. Currently, the HQN is in active communication with AQ in regards to the US's peace

talks with the Taliban in Afghanistan and is discussing creating a new joint force in which 2,000

of AQ and HQN's fighters would be funded by and train with AQ (United Nations Security

Council, 2020, p. 12-13). Even under immense international pressure, the network maintained its

loyalty to their ideological allies. Thus, it is likely that the HQN is willing to outlast most – if not

all – alliances they have formed.

The network is reportedly "deeply entrenched" with the Kabul Attack Network (KAN)

(Roggio, 2010). The KAN is "a confederation of insurgent groups…that works together to

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[4] A proxy force is a force under the control of a major power, whether it be an individual, group, institution, or country, in which that major power "instigates or plays a major role in supporting and directing a party to a conflict but does only a small portion of the actual fighting itself" (Byman, 2018).

execute attacks in Kabul," and this coalition unites the HQN, AQ, the Afghan Taliban, Lashkar-e-Taiba (LeT), and Hizb-I Islami Gulbuddin (HiG) (Dressler, 2012, p. 27). In addition, there is evidence that the HQN is allied with the following terrorist groups: the Islamic Movement of Uzbekistan (IMU), Jaish-e-Mohammed (JeM), Lashkar-e-Jhangvi (LeJ), and Tehrik-i-Taliban Pakistan (TTP) (UMDSMART, 2015). Many of these terrorist organizations "depend on the [HQN's] facilitation, command and control, and finances" for success, and these alliances in turn provide the HQN with "disproportionate influence…relative to [their] physical presence" in territories throughout Afghanistan (112th Congress, 2012).

Present Day

Currently, the US, under the Biden administration, is sending Representative for Afghanistan Reconciliation Zalmay Khalilzad to Afghanistan and Qatar to restart peace negotiations with the Afghan government and Taliban representatives (Pellish & LeBlanc, 2021, n.d.). Peace negotiations with the Taliban were started under the Trump administration and signed in February 2020, stating that the Taliban would reduce violence and end alliances with specific terrorist organizations in exchange for US forces being withdrawn by May of 2021 (Pellish & LeBlanc, 2021). While the US is still lacking a well-defined strategy for continuing and succeeding with these peace negotiations, it appears that many see the Taliban's willingness to negotiate "a victory for the Taliban's cause and thus [a victory] for global militancy" (United Nations Security Council, 2020, p. 3).

However, inter-faction fighting within the Taliban may delay or halt such negotiations, particularly between the HQN and Mullah Mohammad Yaqoob's faction, which share tensions due to the Taliban's "contradictory policy" towards India (Schwartz & Biberman, 2020, n.d.). While the HQN is allied with Pakistan and aids as a proxy force for Pakistan to conduct terrorist

attacks within India, Yaqoob favors reconciliation with India (Schwartz & Biberman, 2020, n.d.).

As Yaqoob has gained support from Taliban factions in the south, where Sirajuddin "has been

unpopular," the HQN, likely alongside Pakistan, may feel the need to ramp up military

operations in the region (Schwartz & Biberman, 2020, n.d.). In the wake of such tensions

regarding relations with India, it was suggested that attacks targeting Kabul conducted by the

HQN, alongside their allies JeM and LeT, may be imminent, implying that the HQN "is

preparing military operations to bolster its standing with the Taliban" (Schwartz & Biberman,

2020, n.d.). This is supported by the fact that Abdul Aziz Abbasin, a senior HQN member and

brother of Sirajuddin Haqqani, "ordered increased supplies of ammunition and explosive

materials for Taliban forces in Ghazni, Wardak, Paktiya, and Parwan Province (United Nations

Security Council, 2020, p. 9).

Multiple outcomes have been considered in the case that peace negotiations do not

operate as planned or are delayed, possibly creating an environment that risks Taliban

fragmentation and an increase in splinter groups or defected militants. If such a fragmentation

were to occur, it would likely result in "significant changes to the group's organizational

structure," "institutions could prompt crises of confidence among leaders or individual

members," and current militants defaulting to Taliban-factions such as the local IS branch and

the HQN (Watkins, 2020, p. 14-16). However, it is believed that the Taliban will likely only

fragment "if leadership loses the capacity and credibility to provide for the survival and further

the interests of the movement's members, if the basis of its support and sanctuary shifts in

fundamental ways, or if the military course of the conflict leads to significant territorial gains or

losses" (Watkins, 2020, p. 16). Furthermore, the HQN is unlikely to abandon their loyalty to the

Taliban amidst the peace negotiations with the US due to their longstanding alliance and the

HQN's objective of "supporting the reemergence of the Afghan Taliban's authority over the country" (Lurie, 2020, p. 2). The peace negotiations between the US and the Taliban are more likely to further centralize and legitimize the Taliban's influence within Afghanistan, which thus further centralizes and legitimizes the HQN's influence within Afghanistan. In addition to strengthening their perceived legitimacy, the Biden administration's willingness to continue peace negotiations allows for the closely allied Taliban and HQN to play a "double game" with the US government – normally known for not negotiating with terrorists – in which the HQN continues to carry out terrorist attacks while the Taliban peacefully participates in negotiations with US diplomatic emissaries (Lurie, 2020, p. 1).

Spectacular Attacks as Modus Operandi

A review of the literature and the breadth of the HQN's reach and capabilities within Afghanistan thus indicates a significant – if not, troublesome – discrepancy between the qualitative literature's implied lethality of the HQN and the contrasting quantitative data. In order to explore the possibility of an undercount of HQN attributed attacks in Afghanistan in the GTD, using key elements of the HQN's signature SA can allow for the establishment of a *modus operandi* that may indicate the HQN was involved in an attack. As mentioned previously, the HQN participates in asymmetric and guerilla warfare and has developed a specific signature attack, or *modus operandi*, dubbed their SA (Ruttig, 2012). Their SA are used as an "asymmetric strategy designed to generate a disproportionate psychological and propaganda effect" using coordinated attacks and suicide bombings (Dressler, 2012, p. 31). The Institute for the Study of War classifies a "typical HQN attack" as an attack in which "groups of gunmen wearing suicide vests assault and then barricade themselves inside a fortified structure," forcing security forces to

lay siege and clear the area under attack and thus "[prolonging] the attack and [generating] maximum media exposure" (Dressler, 2012, p. 31).

These signature attacks serve four main purposes. Firstly, they undermine the Afghan government by creating the perception that the regime cannot protect its citizens, thus capturing the public psychologically (Dressler, 2012, p. 31). The HQN purposely attacks infrastructure symbolic of development, including schools, businesses, and roads, in order to invoke long-term fear in victims by squashing hopes for improved conditions in their country (Weinbaum & Babbar, 2016, p. 10). They also attack infrastructure and individuals symbolizing power and authority in Afghanistan in further attempts to undermine the regime. These SA also increase public paranoia and reemphasizes the idea that citizens are not fully protected by the Afghan government. Secondly, the attacks raise the price and risk of conducting business or carrying out diplomatic missions in the country (Dressler, 2012, p. 31). Thirdly, the attacks take advantage of the mass amounts of local and international media present in Kabul, the capital of Afghanistan, as their presence and reporting allows "even a relatively small attack in Kabul [to] create the appearance of instability and the impression that the city is besieged" (Dressler, 2012, p. 31). Lastly, they allow the network to shrink already limited resources in Afghanistan. Thus, the HQN *modus operandi* consists of the following elements: small groups of gunmen, suicide bombing equipment, sieging of infrastructure, prolonging of attack, and the maximization of media coverage and psychological fear of the public. If an attack maintains a combination of these elements, then it could possibly indicate that the HQN was directly behind or at least involved in the attack, even if the HQN was not directly implicated.

Prime examples of such HQN SA include an attack on the US Embassy and a suspected ambulance bombing. In September of 2011, the HQN conducted a 19-hour long siege on the US

Embassy and NATO headquarters, resulting in the killing of five police officers, 11 civilians, and wounding over 100 others (Stanford University, n.d.). While it was not claimed by the HQN, the attack was said to "bore the hallmarks" of the HQN and its "complexity and execution" was believed to be indicative of the group (Healy & Rubin, 2011). The attack was noted to have "paralyzed central Kabul, bogged down security forces for hours, and illustrated how the militants still have the ability and the will to attack some of the capital's most heavily guarded areas" as well as "underlined fears that the Afghan security forces would not be able to prevent high-profile violence and secure the country" (Healy & Rubin, 2011). Further, a Washington official believed that, while the HQN were the main perpetrators, they were likely accompanied by other terrorist groups in conducting the attack (Healy & Rubin, 2011). In 2018, the US military spokesman in Afghanistan claimed that the US was "very confident the Taliban Haqqani[5] network was behind the killing of more than 103 people" in an ambulance bombing in Kabul (Stewart & Nichols, 2011). The bomb was detonated in an area "home to offices of the European Union, a hospital, and a shopping zone," which aligns with the HQN's targeting style (BBC News, 2018). Although the Afghan Taliban claimed the attack, Afghanistan's envoy to the United Nations told Reuters the following in an interview: "given the degree of sophistication…can you expect a…Taliban to come up with this kind of genius plot, using ambulances? It's not a simple thing to do" (Healy & Rubin, 2011). Assuming that the HQN must

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[5] Because the HQN and the Afghan Taliban are so deeply intertwined at both the administrational and operational levels, the literature often portrays the HQN as being a "fierce branch of the Afghan Taliban" or the Taliban's "most unified division" (Lurie, 2020, p. 1). Despite this, it is considered its own independent organization (Lurie, 2020, p. 1). Jalaluddin once served as the Taliban's Minister of Tribal and Border Affairs and Sirajuddin currently serves as the Taliban's emir Mullah Akhtar Mohammed Mansur. Sirajuddin's position within the Taliban is considered "the second in command as well as the command of [the Taliban's] military forces," which further aligned the HQN with the Taliban, and thus likely further exacerbates confusion regarding the HQN's autonomy (Lurie, 2020, p. 3). It has been estimated that the HQN make up approximately 20% of the Taliban's fighting forces (Lurie, 2020, p. 6).

be involved in or is the only possible perpetrator of multifaceted assaults speaks to the complexity and capability of precedent HQN SA and their sophistication.

RESEARCH QUESTION

A review of the literature thus reveals that the HQN has solidified itself as a resilient and competent enemy capable of withstanding decades of opposition and multiple countries' counterterrorism efforts. Their vast access to key territories, their financial autonomy, and their far-reaching network of alliances has provided the HQN with a unique position in Afghanistan: they have been able to master the use of safe havens, alliance building, and proxy forces in a way that could potentially reduce the number of attacks that are attributed to their organization in the GTD. As a result, it is possible that an overall undercounting of the organization's power and reach is also taking place. This seems plausible, as out of the 16,313 terrorist attacks that have taken place in Afghanistan between 1970 and 2019, only 84 have been attributed to the HQN (UMDSMART, 2019). Therefore, despite having been described as "the most lethal facilitator of terrorist groups in the region," "the most ruthless and violent" of Afghan terrorist organizations, and accused of being "responsible for the vast majority of the most heinous attacks against US international organizations, Afghan forces, and innocent Afghan civilians," the GTD attributes fewer than 1% of Afghanistan's terrorist attacks to the HQN (112th Congress, 2012).

Therefore, this study asks the following: is the GTD accurate in attributing fewer than approximately 1% of Afghanistan's terrorist attacks to what has been described as the most lethal and strategically capable terrorist organization in Afghanistan and, arguably, the world? Specifically, this study intends to use two advanced analytic methodologies – associations rules mining (ARM) and Naive Bayes classifiers – in order to determine if any terrorist attacks taking place in Afghanistan between 1970 and 2019 could have been perpetrated by the HQN but

misattributed in the GTD. Thus, the ultimate objective of this study is to determine whether or not GTD variables indicative of the HQN's *modus operandi* can be used to predict potential HQN perpetrated attacks that were misattributed through machine learning.
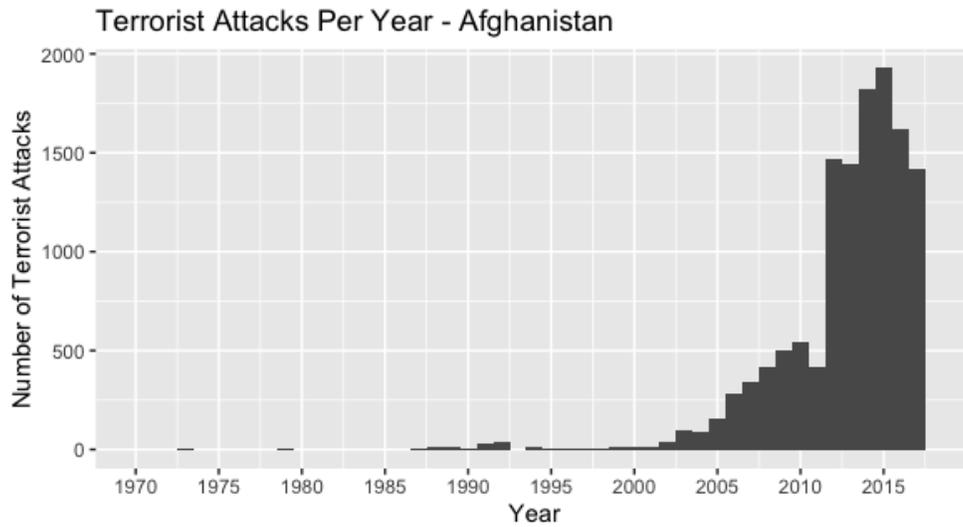

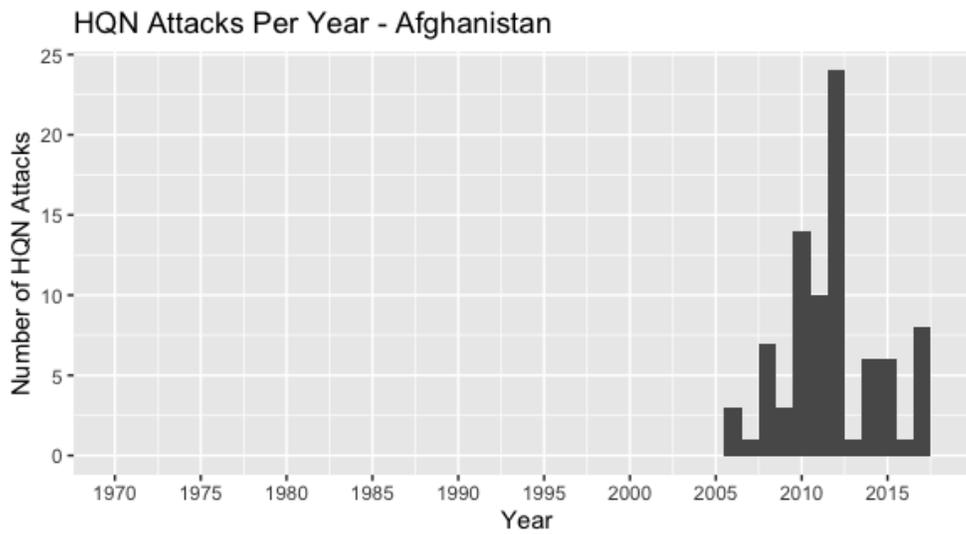*Figure 3. Terrorist Attacks Per Year – Afghanistan*

Figure 4. HQN Attacks Per Year – Afghanistan

SPECTACULAR ATTACKS AS *MODUS OPERANDI*

Data

The GTD is "an open-source database including information on domestic and international terrorist attacks around the world" from 1970 through 2019, which is maintained by the University of Maryland's National Consortium for the Study of Terrorism and Responses to Terrorism (UMDSTART) (UMDSMART 2019). The GTD contains information on more than 200,000 terrorist attacks and is "currently the most comprehensive unclassified database on terrorist attacks in the world" (UMDSMART, 2019).[6]

The five critical variables in this exploration are the variables discerning whether or not a suicide attack took place, whether or not the attack was extended, the name of the group suspected or accused of perpetrating the attack, the attack type, and the target type of the attack. The suicide variable is a categorical variable that indicates either "Yes, the incident was a suicide attack," or "No, there is no indication that the incident was a suicide attack" (UMDSTART, 2019). This variable may be useful as it can represent the HQN *modus operandi* element of using suicide bombing equipment during an attack. The extended variable is a categorical variable that indicates either "Yes, the duration of an incident extended more than 24 hours," or "No, the duration of an incident extended less than 24 hours" (UMDSTART, 2019). This variable may be useful as it can represent the HQN *modus operandi* element of the prolonging of attacks. The attack type variable is categorical variables that "captures the general method of attack and often reflects the broad class of tactics used" (UMDSTART, 2019). This variable may be useful as it can represent the HQN *modus operandi* element of small groups of armed gunmen conducting

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[6] The GTD's specific methodology for identifying and attributing terrorist attacks can be found in the GTD codebook on pages 9-12 (UMDSTART, 2019, 9-12).

the attacks and sieges. Finally, the target type variable is a categorical variable that "captures the general type of target/victim" (UMDSTART, 2019). This variable may be useful as it can represent the HQN *modus operandi* element of targeting institutions, infrastructure, or symbols representative of the Afghan government or representative of the Afghan people's hope for an improved quality of life in the future. The variable representing the name of the perpetrator group is a text variable that indicates "the name of the group that carried out the attack" (UMDSTART, 2019). This variable may be useful as it can represent the HQN *modus operandi* element of potentially using proxy forces to carry out HQN attacks.

Cleaning and Management Steps

After uploading the GTD into *R*, the dataset was subsetted so that only terrorist attacks that took place in Afghanistan would be examined. This is because the HQN's main objectives lie within Afghanistan and thus the HQN primarily operates within Afghanistan. The "suicide" and "extended" variable were then cleaned and formatted. Their numerical code indicating whether or not a suicide or extended attack had occurred were recoded into a character string so as to make labels and resulting analysis easier to understand. As previously discussed, the HQN SA are characterized by their tendency to use explosives as equipment for suicide attacks as well as their tendency to prolong attacks for as long as possible in order to generate as much media coverage as possible.

The attack type variable was recoded so as to truncate the original nine elements of the variable. A full list of the original elements can be found in the GTD Codebook (UMDSTART, 2019, p. 23). These were truncated into three elements: "indicative of possible HQN attack," "not indicative of possible HQN attack," and "unknown." As previously discussed, HQN SA are classified as "groups of gunmen wearing suicide vests" that "assault and then barricade

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themselves" (Dressler, 2012, p. 31). Thus, the elements of "armed assault,"

"bombing/explosion," "hostage taking (barricade incident)," and "facility/infrastructure attack"

were recoded as indicative of a possible HQN attack while the remaining elements were recoded

as not being indicative of a possible HQN attack. The "unknown" element was left as it was.

Similarly, the target type variable was then recoded so as to truncate the original twenty-

two elements of the variable. A full list of the original elements can be found in the GTD

Codebook (UMDSTART, 2019, p. 32). These were truncated into four elements: "indicative of

possible HQN target," "not indicative of possible HQN target," "other," and "unknown." As

previously discussed, the HQN employ SA in an attempt to reach a set of objectives, and these

objectives can help inform the variable's categorization. Because the HQN seeks to undermine

the Afghan government, it is logical to assume that the elements of "government (diplomatic),"

"government (general)," "military," and "police" targets could be indicative of possible HQN

SA. Because the HQN also attempts to psychologically capture Afghan citizens and destroy their

hope for a better future through SA, it is also logical to assume that the elements of "private

citizens and property" and "educational institution" targets could also be indicative of possible

HQN attacks. Furthermore, because HQN SA aim to raise the price of conducting business and

diplomatic missions in the country, it is further logical to assume the elements of "business" and

"NGO" could be indicative of possible HQN attacks. Finally, because HQN SA attempt to

dwindle already scarce Afghani resources, it is thus logical to assume that the elements of "food

or water supply," "telecommunication," "transportation," and "utilities" targets could be

indicative of possible HQN attacks. The "other" and "unknown" elements were left as it was.

Furthermore, the variable representing the perpetrating terrorist organization was then

recoded so as to truncate the original forty-five elements. A full list of the original elements can

be found in the GTD Codebook (UMDSTART, 2019, p. 43). These were truncated into four elements: "HQN," "HQN ally," "not HQN ally," and "unknown." The original group name of "Haqqani Network," was recoded to the acronym used throughout this paper (HQN). Terrorist group names recoded as an HQN ally were done so due to evidence found in the literature establishing such a relationship between the two groups, as previously discussed. Therefore, the group names of "Al-Qaida," "Taliban," "Lashkar-e Taiba (LeT)," "Hizb-I-Islami," "Islamic Movement of Uzbekistan (IMU)," "Jaish-e-Mohammad (JeM)," "Lashkar-e-Jhangvi," and "Tehrik-i-Taliban Pakistan (TPP)" were coded as HQN allies. The group name "Afghan mujahideen," too, was recoded as an HQN ally because, as previously mentioned, the founder of the HQN, Jalaluddin Haqqani, was a leader of the Afghan mujahideen during the Soviet-Afghan War and the Afghan mujahideen was the initial members of the HQN at the time of its consolidation (Brown & Rassler, 2013). Finally, group names that were not referencing a specific terrorist organization, along with the original category of "unknown," were recoded into the element "unknown." This is because a portion of the groups listed as group names in the GTD are far too vague to derive any meaningful information from. For example, a vague group name was that of "Islamist extremists" (UMDSTART, 2018). Terrorist organizations that could be labeled as Islamist extremists include HQN, AQ, Boko Haram, Hezbollah, Hamas, and IS, and some of which do not operate within Afghanistan. Because there are numerous possible groups that could be attributed to an attack labeled so broadly, these groups were placed in the category of "unknown," and those groups were as follows: "Afghan guerillas," "Afghan rebels," "anti-United States extremists," "guerillas," "insurgents," "Islamist extremists," "militants," "Muslim extremists," "Muslim guerillas," "Muslim militants," "opposition group," "Shia

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Muslim extremists" and "unknown" (UMDSTART, 2019). The remaining group names were recoded as "not an HQN ally."

METHODS

In order to analyze the possible underestimation of attacks attributed to HQN in the GTD, the descriptive method of ARM will be employed first. ARM takes a large number of transactions – in the context of this study, terrorist attacks occurring within Afghanistan – in which each transaction consists of one or more items – in the context of this study, items are represented by variables indicative of a HQN terrorist attack – then examines the included items in order to "see what items are frequently bought together and to discover a list of rules that describe the purchasing behavior" (EMC Education Services, 2015, p. 138). Patterns in the data can be derived from these rules determined by ARM. ARM involves an "item set," which is a "collection of items or individual entities that contain some kind of relationship" and applies the "apriori algorithm," which is "one of the earliest and most fundamental algorithms for generating association rules" and provides that, "given an item set L, the support of L is the percentage of transactions that contain L" (EMC Education Services, 2015, p. 139). Further, ARM provides a measure of "confidence," which is "defined as the measure of certainty or trustworthiness associated with each discovered rule" and in which "a higher confidence indicates that the rule is more interesting or more trustworthy, based on the sample data" (EMC Education Services, 2015, p. 141). This analysis will be performed as a "basket analysis" such that, once transitioned into a transactional dataset, each row in the transactional data will represent a unique transaction while each column will be populated with the items that were found in that transaction.

First, ARM was conducted for each of the pertinent variables previously discussed. For this study, support is defined as the percentage of transactions in which a specified or particular

set of items occurs. Therefore, in the context of this study, support is the percentage of terrorist attacks within Afghanistan in which the specified variables present during the terrorist attacks in question were indicative of HQN *modus operandi* and therefore potentially indicative of a miscounting of HQN attacks within Afghanistan. The level of support was set at 0.01 for all five variables, indicating that such items (i.e. values of the variables) must be present in 1% of transactions (terrorist attacks occurring within Afghanistan) in order to be significant, while the confidence was tested at varied levels. The objective of the first part of the ARM analysis was to examine transactions, or instances of terrorist attacks in Afghanistan recorded in the GTD, in order to produce between six and eight probability rules with the highest level of confidence possible for each key variable. An outcome that would most strongly suggest a possible unattributed HQN attack would be a high confidence rule that found a relationship between all five variables indicative of a possible HQN attack. Thus, the more variables that maintain high confidence relationships between each other, the more likely it is that an underestimation of HQN attributed attacks may have occurred. Relationships between variables that maintain weak levels of confidence will be assumed to be of no significance. These established rules would then be used in a subsequent Naive Bayes classifier as input variables/predictors. The objective for the second part of the ARM analysis was to establish a right-side outcome for the Naive Bayes classifier in which the output variables/classes are indicative of HQN or an HQN ally perpetrating the attack.

A Naive Bayes classifier is derived from Bayesian statistics and the Bayesian theorem of probability in which probability expresses a degree of belief in an event. The mathematical equation for the Bayesian theorem looks to solve for the probability of y given input features x, given that y and x are conditionally independent from one another. A Naive Bayes classifier thus

assumes that "the value of a predictor (x) on a given class (y) is independent of the values of other predictors" ("Naive Bayesian," n.d.). The goal of a Naive Bayes classifier is to identify y with the maximum probability. Therefore, the objective of a Naive Bayes classifier is to make distinct classification predictions based on the probabilistic assumptions of the model.

The present analysis creates two Naive Bayes classifiers: a multi-class, simple classifier that utilizes simple rules and a binary, more complicated classifier that utilizes more complicated rules.[7] Two types of Naive Bayes classifiers are employed in order to compare and contrast results that may differ depending on the complexity of the rules used. The simple classifier provides data for a multitude of output variables/classes, whereas the complicated classifier provides data for two output variables/classes: "0," which indicates that the criteria for the specific rule was not fulfilled, and "1," which indicates that the criteria for the specific rule was fulfilled. Ultimately, these classifiers will then identify the number of terrorist attacks that have a high probability of belonging to the output variables/classes of interest, thereby identifying the number of terrorist attacks in Afghanistan that likely were perpetrated by the HQN or maintained some level of HQN involvement but have been misattributed by the GTD.

BAYES THEOREM
x = input variables, predictors
y = output variables, classes

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[7] When building these classifiers in *R*, data regarding attacks perpetrated by the Afghan Taliban were dropped due to their overwhelming effect on the results of the analysis. However, dropping this subsection of data is justified. Because the HQN and the Afghan Taliban's leadership and operations are so deeply intertwined (as previously discussed in the literature review), it is likely that the HQN have been involved in some way with each terrorist attack perpetrated by the Afghan Taliban in Afghanistan.

$$p(y|x) = \frac{p(x|y) * p(y)}{p(x)}$$

NAIVE BAYES CLASSIFIER

$$p(y|x) \; \alpha \; p(x|y) * p(y)$$

OR

$$p(y|x) \; \alpha \; p(y) * \prod_{i=1}^{n} p(x_i|y)$$

Where…

$p(y|x)$ = *the posterior probability of y given x*

$p(y)$ = *the prior probability of y*

$p(x|y)$ = *the likelihood/probability of x given y*

$p(x)$ = *prior probability of x*

RESULTS

In regards to the ARM analysis, the suicide attack variable and the extended attack variable were found to be insignificant. The analysis of the suicide attack variable was completed at a support level of 0.01 and a confidence level of 0.10, resulting in a total of eight rules (see Table 1). The maximum level of confidence that could be achieved for this variable was 0.119, and thus this variable and its relationship with other HQN indicative variables is non-significant. Furthermore, the analysis of the extended attack variable was completed at a support level of 0.01 and a confidence level of 0.40, resulting in a total of six rules (see Table 2). The maximum level of confidence that could be achieved for this variable was 0.479, and thus this variable and its relationship with other HQN indicative variables is non-significant. While this is an

improvement from the previous variable's outcome, it is still not significant enough to indicate

the possibility of an unattributed HQN attack.

Table 1. Suicide Attack Rules - ARM Results

Rule #	Left Hand Side	Right Hand Side	Support	Confidence	Significant?
1	HQN Ally, Indicative of HQN Attack, Not Extended Attack	Suicide Attack	0.045	0.119	No
2	HQN Ally, Indicative of HQN Attack	Suicide Attack	0.046	0.117	No
3	HQN Ally, Indicative of HQN Attack, Indicative of HQN Target, Not Extended Attack	Suicide Attack	0.040	0.117	No
4	HQN Ally, Indicative of HQN Attack, Indicative of HQN Target	Suicide Attack	0.040	0.116	No
5	Indicative of HQN Attack, Not Extended Attack	Suicide Attack	0.079	0.115	No
6	Indicative of HQN Attack	Suicide Attack	0.079	0.114	No
7	Indicative of HQN Attack, Indicative of HQN Target, Not Extended Attack	Suicide Attack	0.064	0.111	No
8	Indicative of HQN Attack, Indicative of HQN Target	Suicide Attack	0.064	0.110	No

Table 2. Extended Attack Rules - ARM Results

Rule #	Left Hand Side	Right Hand Side	Support	Confidence	Significant?
1	HQN Ally, Not Indicative of HQN	Extended Attack	0.047	0.479	No

	Attack, Not Suicide Attack				
2	HQN Ally, Indicative of HQN Target, Not Indicative of HQN Attack, Not Suicide Attack	Extended Attack	0.042	0.477	No
3	HQN Ally, Not Indicative of HQN Attack	Extended Attack	0.047	0.462	No
4	HQN Ally, Indicative of HQN Target, Not Indicative of HQN Attack	Extended Attack	0.042	0.459	No
5	Not Indicative of HQN Attack, Not Suicide Attack	Extended Attack	0.062	0.407	No
6	Indicative of HQN Target, Not Indicative of HQN Attack, Not Suicide Attack	Extended Attack	0.054	0.405	No

The attack type variable, target type variable, and the HQN ally variable were found to be significant. The analysis of the attack type variable was completed at a support level of 0.01 and a confidence level of 0.92, resulting in a total of six rules (see Table 3). Thus, because the confidence levels of each rule range from 0.921 to 0.926, each rule is a strong indicator of a relationship between the variable and the transactions taking place. Or, in the context of this thesis, each rule is a strong indicator of a relationship between the variable indicative of an HQN attack type and the terrorist attack that took place. The analysis of the target type variable was completed at a support level of 0.01 and a confidence level of 0.90, resulting in a total of six rules (see Table 4). Thus, because the confidence levels of each rule range from 0.900 to 0.906, each rule is a strong indicator of a relationship between the variable and the transactions taking

place. Or, in the context of this project, each rule is a strong indicator of a relationship between the variable indicative of an HQN target type and the terrorist attack that took place.

Finally, the analysis of the HQN ally variable was completed at a support level of 0.01 and a confidence level of 0.70, resulting in a total of eight rules (see Table 5). Thus, because the confidence levels of each rule range from 0.763 to 0.807, each rule is a mildly strong indicator of a relationship between the variable and the transactions taking place. Or, in the context of this thesis, each rule is a mildly strong indicator of a relationship between the variable indicative of an HQN ally and the terrorist attack that took place. These rules produced by ARM testing of the HQN ally variable were then used to create six new variables representing these rules. The new variables were then used as binary indicators of whether or not a terrorist attack adhered to that particular rule in order to act as predictors of HQN attacks in a complicated classifier. The simple classifier utilized the original GTD variables indicative of HQN SA (i.e. representing suicide attacks, extended attacks, attack types, target types, and HQN allies), and the two classifiers were then compared to evaluate performance.

Table 3. Attack Type Rules - ARM Results

ATTACK TYPE RULES – ARM RESULTS					
Rule #	Left Hand Side	Right Hand Side	Support	Confidence	Significant?
1	HQN Ally, Suicide Attack	Indicative of HQN Attack	0.046	0.926	Yes
2	HQN Ally, Not Extended Attack, Suicide Attack	Indicative of HQN Attack	0.045	0.925	Yes
3	Suicide Attack, Unknown	Indicative of HQN Attack	0.028	0.921	Yes
4	Not Extended Attack, Suicide Attack, Unknown	Indicative of HQN Attack	0.028	0.921	Yes
5	Suicide Attack	Indicative of HQN Attack	0.079	0.921	Yes

6	Not Extended Attack, Suicide Attack	Indicative of HQN Attack	0.079	0.921	Yes

Table 4. Target Type Rules - ARM Results

TARGET TYPE RULES – ARM RESULTS					
Rule #	Left Hand Side	Right Hand Side	Support	Confidence	Significant?
1	Extended Attack, HQN Ally	Indicative of HQN Target	0.053	0.906	Yes
2	Extended Attack, HQN Ally, Not Suicide Attack	Indicative of HQN Target	0.053	0.905	Yes
3	HQN Ally, Not Extended Attack, Not Indicative of HQN Attack	Indicative of HQN Target	0.049	0.902	Yes
4	HQN Ally, Not Suicide Attack	Indicative of HQN Target	0.515	0.901	Yes
5	HQN Ally, Not Extended Attack, Not Suicide Attack	Indicative of HQN Target	0.462	0.901	Yes
6	HQN Ally	Indicative of HQN Target	0.559	0.900	Yes

Table 5. HQN Ally Rules - ARM Results

HQN ALLY RULES – ARM RESULTS					
Rule #	Left Hand Side	Right Hand Side	Support	Confidence	Significant?
1	Extended Attack, Indicative of HQN Target	HQN Ally	0.053	0.807	Mildly
2	Extended Attack, Indicative of HQN Target, Not Suicide Attack	HQN Ally	0.053	0.806	Mildly
3	Extended Attack	HQN Ally	0.058	0.791	Mildly
4	Extended Attack, Not Suicide Attack	HQN Ally	0.058	0.790	Mildly
5	Extended Attack, Indicative of HQN Target, Not	HQN Ally	0.042	0.775	Mildly

	Indicative of HQN Attack				
6	Extended Attack, Indicative of HQN Target, Not Indicative of HQN Attack, Not Suicide Attack	HQN Ally	0.042	0.775	Mildly
7	Extended Attack, Not Indicative of HQN Attack	HQN Ally	0.047	0.763	Mildly
8	Extended Attack, Not Indicative of HQN Attack, Not Suicide Attack	HQN Ally	0.047	0.763	Mildly

In regards to the simple Naive Bayes classifier, the model identified 40 Afghanistan terrorist attacks that may have been misattributed to the wrong perpetrator group instead of the HQN (see Table 6). In regards to the complicated Naive Bayes classifier, the model did not identify any Afghanistan terrorist attacks that may have been misattributed to the wrong perpetrator group instead of the HQN (see Table 7). Therefore, based on the results of these Naive Bayes classifiers, this thesis can come to two conclusions: (1) The simple classifier analysis indicates that the GTD data regarding HQN attributed terrorist attacks in Afghanistan may be off by approximately 40 terrorist attacks, potentially bringing the total number of HQN terrorist attacks in Afghanistan to a total of 124 terrorist attacks as opposed to the currently reported 84 HQN attributed terrorist attacks in Afghanistan; and (2) the complicated classifier analysis indicates that either (a) the GTD data regarding HQN attributed terrorist attacks in Afghanistan may very well be accurately attributing attack perpetrators in Afghanistan and the data therefore could be reflecting a shift from the HQN serving as visible battlefield militants to a more shielded role as facilitators of terrorism in Afghanistan, or (b) that this result is, itself, indicative of the very lack of recorded HQN data that motivated this analysis in the first place.

The latter explanation of the complicated classifier's conclusions is plausible, as it is the author's stance that it would be severely unlikely that, out of the HQN's capabilities and their wide array of alliances, that zero attacks maintained elements of an HQN or HQN ally attack. This may be caused by the GTD's lack of detailed HQN data.

Table 6. Results for Simple Naive Bayes Classifier

RESULTS FOR SIMPLE NAIVE BAYES CLASSIFIER	
Potential HQN Attacks	**Not Potential HQN Attacks**
40	5605

Table 7. Results for Complicated Naive Bayes Classifier

RESULTS FOR COMPLICATED NAIVE BAYES CLASSIFIER	
Potential HQN Attacks	**Not Potential HQN Attacks**
0	5645

CONCLUSIONS

The results of the ARM analysis and the Naive Bayes classifiers imply that there may indeed be an underestimation of HQN attributed attacks in Afghanistan within the GTD, although the results indicate that it is not likely that the GTD is underestimating HQN terrorist attacks by a significant amount. The results can be summarized as follows: (1) ARM identified the variables of attack type and target type as very significant (confidence>0.90) and the variable of HQN allies as mildly significant (0.75<confidence<0.90), therefore implying that the rules for the variables of attack type, target type, and HQN allies were significant indicators of a relationship between the variable indicative of an HQN attack, target, or ally and the terrorist attack that took place; (2) the results of a simple Naive Bayes classifier identified 40 Afghanistan terrorist attacks that may be HQN perpetrated or HQN involved but misattributed by the GTD; and (3) the results of the complicated Naive Bayes classifier identified 0 Afghanistan terrorist attacks that may have been HQN perpetrated or maintained HQN involvement, thus potentially indicating that the data provided by the GTD regarding the HQN is insufficient enough to draw accurate conclusions from the complicated classifier.

Therefore, this paper concludes that it is likely that there is an underestimation of HQN perpetrated attacks within the GTD due to the complex nature of the HQN's presence in the region. ARM analysis demonstrated significant relationships between three of five key variables indicative of HQN *modus operandi,* and a simple Naive Bayes classifier identified 40 Afghanistan terrorist attacks that may have been HQN perpetrated but misattributed. While this analysis was not able to identify a number of potentially misattributed HQN perpetrated attacks large enough to make a drastic statistical difference in the GTD, this paper still achieved its goal

of using machine learning methodologies to theorize and identify a potential underestimation of HQN data in the GTD.

However, this study is susceptible to two main limitations. Firstly, this study is purely exploratory. It does not prove that these terrorist attacks were perpetrated by the HQN, but rather provides results that justifies calls for researchers to further examine the discrepancy between the qualitative literature's representation of the HQN's capabilities and the quantitative data. Furthermore, due to the volatile and clandestine nature of terrorist groups, it is nearly impossible for researchers to be sure that the perpetrating group they are attributing to a terrorist attack was the true culprit, even in cases in which a group takes responsibility outright. Secondly, the very motivation for this study – the lack of HQN attributed terrorist attacks in Afghanistan despite the qualitative literature's acknowledgment of the breadth of HQN capabilities – may very well have inhibited the results of this analysis. Having such limited data on HQN perpetrated attacks does not allow for researchers to understand the full scope of characteristics that may be specific or pertinent to HQN perpetrated attacks or patterns that the HQN established in their attacks over their decades of operation in Afghanistan. Thus, this lack of data prevents researchers from establishing a thorough quantitative baseline knowledge of HQN perpetrated attacks. With these limitations in mind, future research on the matter may best be focused in three specific areas: (1) Finding ways to ensure that researchers and data scientists in the field are educated on and made aware of the complicated nature of the HQN and the ways in which it evades attribution in order to properly analyze and critique terrorist attacks in Afghanistan before attributing them to a specific terrorist group; (2) continue to investigate this discrepancy between the HQN's capabilities reported by the qualitative literature and the quantitative data in order to continue calling further attention to the issue; and (3) if possible, establish specific qualitative literature

and quantitative data that specifies the HQN's potentially evident shift from more visible battleground militants to more shielded, administrative-like facilitators of terrorism in the region. Unfortunately, until this discrepancy between the HQN capabilities reflected in the qualitative literature and the quantitative data is thoroughly addressed, further testing and analysis will continue to be purely theoretical or simply inaccurate.

It is the hope that these analyses will bring much-needed attention to the insufficient quantitative data on the HQN, as it is likely that if the GTD and related quantitative data are underestimating the scope of the HQN's terror, then counterterrorism policy is also likely underestimating the HQN, thus risking ineffective measures or ill-placed resources that do not properly address terrorism in the region. This may very well be the case presently, as the HQN has continued to evade responsibility and persecution for their deep level of involvement in inflicting terror upon Afghanistan since the Soviets withdrew from Afghanistan in 1989. The inability of counterterrorism efforts in Afghanistan to eradicate the HQN has resulted in immeasurable devastation, and these counterterrorism efforts may well have failed because the quantitative data severely underestimates the reach that the HQN has in the region. It is pertinent that the HQN be properly addressed in Afghanistan for both regional stability and the safety of those residing in Afghanistan, including United States troops and personnel. In conclusion, there may indeed be an underestimation of HQN attributed terrorist attacks in Afghanistan within the GTD. The HQN have maintained a consistent *modus operandi* over their near half-century of existence, but their strategic advantages of their key territories, financial autonomy, and wide array of alliances may have allowed for them to continue pursuing their objective of carrying out SA while evading responsibility for a large percentage of their actual number of attacks.

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