



Deconstructing the Business of Terrorism

A Case Study of JNIM in Mali

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Abstract

On 2 March 2017, al-Qaeda's regional affiliate in North Africa, i.e. al-Qaeda in the Islamic Maghreb (AQIM), merged with three other Jihadist groups active in Mali to form a new unified group called "*Jama'at Nusrat ul-Islam wal-Muslimeen (JNIM)*". This thesis analyses the business model of this new group, JNIM, by reconstructing its Business Model Canvas with a view to visualising both its revenue streams and cost structure. The findings picture an organisation that is able to serve several types of customers by relying on only few key resources. It also reveals a highly integrated business model in which revenue and non-revenue generating activities interact and re-inforce each other through multiple feedback loops. While most of the contemporary literature on terrorism finance focuses on revenues, this case study suggests that the costs might actually be just as relevant to identify certain red flags allowing to disrupt terrorist business models.

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Introduction

On 2 March 2017, al-Qaeda's regional affiliate in North Africa, i.e. al-Qaeda in the Islamic Maghreb (AQIM), merged with three other Jihadist groups active in Mali to form a new unified group called "*Jama'at Nusrat ul-Islam wal-Muslimeen (JNIM)*".

The goal of this thesis is to analyse the business model of this new group, JNIM, by reconstructing its Business Model Canvas with a view to visualising both its revenue streams and cost structure. In doing so, this thesis aims to identify points for targeted policy intervention that might help disrupt the financial viability of JNIM's business model. Overall, this thesis aims to shed new light on how foreign terrorist organisations function, the types of costs they incur, and the revenue streams they generate.

Essentially, a business model is a plan detailing how an organisation generates revenues and how it incurs costs. It can therefore be argued that every organisation has one, even if the word "business" is not used as a descriptor. As pointed out by Osterwalder and Pigneur (2010, p. 264), "*to survive, every organization that creates and delivers value must generate enough revenue to cover its expenses – hence it has a business model*".

Like every human enterprise, terrorist organisations require certain basic resources without which they cannot subsist. Just like a car will cease to drive the moment it runs out of fuel, the organisation will cease to operate as soon as it lacks one or more of its basic resources.

The basic resources for a terrorist group need not be substantially different from that of "normal" businesses. To operate, terrorist organisations for example need: employees (e.g. fighters), equipment (e.g. explosives & weapons), facilities (e.g.: housing and training camps), transport, etc.

Naturally, these resources have a cost. And just like a company who is no longer able to cover these costs will sooner or later file for bankruptcy, a terrorist group will sooner or later decompose. Thus, a terrorist group running out of money shares the same fate as the car running out of fuel.

There are very few organisations in this world that have to operate, evolve and survive in environments as unpredictable and hostile as terrorist organisations. Management theory suggests that for organisations to be effective in such unique environments, they need to develop business models which are not only innovative but also highly adaptive (Casadesus-Masanell and Ricart, 2009).

It comes as no surprise, thus, that the idea of analysing terrorist business models is not new. As emphasized by DaSilva and Trkman (2013), the growth of business model literature in recent years can partly be attributed to papers outside the business sphere. The term has for example been used to analyse various kinds of human endeavours, ranging from political

parties (Faucher-King, 2008) to nature preservation (Sovinc, 2009), the development of rare diseases (Ferry, 2010) and also to terrorist organisations (Tupman, 1998; Garnett, 2010; Vardi, 2010; Gallo, 2011; Lormel, 2015; Boll, 2017).

While the interest given to al-Qaeda (AQ) in recent years has been minimal in comparison to the media coverage of its main rival, the Islamic State (IS), today several indicators suggest it might be wise to not lose sight of the evolving threat posed by AQ and its regional affiliates. In fact, as the Caliphate declared by IS has come under pressure from the global anti-IS coalition, AQ-leader *Ayman al-Zawahiri*'s dream of a "secure base for AQ in the heart of the Muslim world" may actually be coming closer to reality (The Economist, 2016).

Since 2015, IS has lost territory and legitimacy to the advances of the global anti-IS coalitions. AQ and its affiliates, though, remained mostly intact and were, in some cases, even expanding (Zelin, 2017). Professor of terrorism studies, Bruce Hoffman (2017, p.12), noted earlier this year that *"while the Islamic State has dominated the headlines for the past four years, al-Qaeda has been quietly rebuilding and marshalling its resources for the continuation of its twenty-year-long struggle against the United States"*. The group might therefore be well-positioned to capitalize on its rival's decline, with the prospect of AQ reabsorbing IS defectors a key potentiality to be reckoned with (Hoffman, 2017). With this in mind, 2017 is an important year for AQ.

While posing a potential global threat for the West, AQ and its regional affiliates continue to pose an actual regional one for countries throughout Africa and the Middle East. According to Daniel Coats, the U.S. Director of National Intelligence, this is due to AQ's continued focus on exploiting local and regional conflicts in Syria, Yemen, Somalia, Libya, Mali, Afghanistan and other countries (Coats, 2017), which it does through a growing network of regional affiliates.

In the Maghreb and Sahel regions of Africa, AQ's affiliates continue to destabilize already weak countries, especially Mali, which is at risk of seeing its fragile peace process collapse as a result (International Crisis Group (ICG), 2017b). The fact that AQIM recently merged with three other Jihadist groups operating in the country to form JNIM only adds to that risk.

The body of this thesis is divided in four chapters. The first chapter introduces the global al-Qaeda network, the subject of this case study, JNIM, and the geo-political environment in which it takes place, Mali. The second chapter describes the methodical tool that forms the backbone of this analysis, i.e. the *Business Model Canvas*. This tool is used in the third chapter to analyse JNIM's business model in Mali. Finally, the fourth chapter presents the results of this analysis and discusses strengths and weaknesses of JNIM's financial strategy.

As will be discussed in the findings of this thesis, JNIM's Business Model Canvas pictures an organisation that is able to serve several types of customers by relying on only few key resources. It reveals a highly integrated business model in which revenue and non-revenue generating activities interact and re-inforce each other through multiple feedback loops. While most of the contemporary literature on terrorism finance focuses on revenues, this case study

suggests that the costs might actually be just as relevant to identify certain red flags, or intervention points, for disrupting terrorist business models.

Background to the case

I AL-QAEDA: THE BASE

Al-Qaeda (AQ) is a U.S. Government designated FTO founded in 1988 by a group of veterans of the Afghan-Soviet War led by *Osama bin Laden* (U.S. Department of State, 2017). While initially established as a hierarchical organisation with a centralised structure (Humud *et al.*, 2014), the group is today better described as a multinational movement led through a global network of regional affiliates.

AQ's ideological objectives focus on expulsing all foreign influences from predominantly Islamic societies (Humud *et al.*, 2014), on overthrowing Middle-Eastern "apostate" governments (Kamolnick, 2017) and, eventually, on replacing them with an Islamic Caliphate governed by sharia (Kaplan and Weiner, 2017).

Bin Laden was convinced that these objectives could not be achieved as long as the "Far Enemy" (i.e. the United States and its European allies) was active in the region. Under his leadership, AQ orchestrated the 1998 bombings of U.S. embassies in Kenya and Tanzania and the 2000 attack on the USS Cole in Yemen, and ultimately rose to worldwide fame by striking the U.S. in their homelands on September 11, 2001 (Gerges, 2009). By targeting this Far Enemy in his own lands, Osama believed, he could be dissuaded from further interfering in the Middle East (Stratfor, 2017).

For Bin Laden's successor, *Ayman al-Zawahiri*, overthrowing regimes in the Arab and Muslim world could only succeed if AQ was able to win the support of the Muslim masses (Cruickshank, 2016). Unlike Bin Laden, Zawahiri has therefore adjusted his strategic priorities to have a greater focus on the "Near Enemy", i.e. local regimes in the Greater Middle East, with an emphasis on seizing and holding territory (Burke, 2015).

Zawahiri understood that to gain the support of the Muslim masses, AQ needed to get involved in regional political and social struggles alongside local Muslim communities (Cruickshank, 2016). As the Arab Spring erupted in 2011, it suddenly presented multiple new opportunities for AQ affiliates to get involved in local struggles. This in turn further propelled AQ's transformation from a centralised hierarchical organisation (as it was before the U.S.-led invasion in Afghanistan) into a multinational movement where a central leadership provides global strategic guidelines while regional affiliates embed in local contexts (Byman, 2011; Clarke and Mendelsohn, 2016).

By the time the U.S. was finally able to get to the "head of the snake" and kill Bin Laden in Pakistan in 2011, AQ's organisation had already become increasingly decentralized, with affiliates acting semi-autonomously as extensions of AQ's mission. And while Al-Qaeda's central command (i.e. *AQ core*) – with its current leader Ayman al-Zawahiri and his top aides

– are still “hiding” in tribal areas along the Afghan-Pakistani border, its affiliates have spread across North Africa and the Sahel, East Africa, the Arabian Peninsula, and most recently, South Asia (Counter Extremism Project (CEP), no date; Stenersen, 2016; Zelin, 2017). In these regional theatres, they tend to increasingly function like political insurgent groups that hold terrain, provide governance and defend Sunni communities from hostile forces (Clarke and Mendelsohn, 2016).

As Guéhenno (2017) notes, AQ had some 400 fighters on 11 September 2001. Today, however, it is stronger than ever with several thousand adherents joining its regional affiliates in countries from the Arabian Peninsula to Southeast Asia.

These affiliates include:

- *Al-Qaeda in the Arabian Peninsula (AQAP)* in Yemen;
- *Jama'at Nusrat ul-Islam wal-Muslimeen (JNIM)*¹ in Mali and several other countries across North Africa and the Sahel;
- *Al-Qaeda in the Indian Subcontinent (AQIS)* in India and Bangladesh as well as in Afghanistan and Pakistan;
- *Hayat Tahrir al-Sham (HTS)*² in Syria
- *Al-Shabaab* in Somalia;
- *and many more associations with regional jihadist groups around the world.*

II JNIM: AL-QAEDA'S REGIONAL AFFILIATE IN MALI

In March 2017, al-Qaeda in the Islamic Maghreb (AQIM), AQ's regional affiliate in North and West Africa, merged with three other AQ-linked groups active in Mali, namely *al-Mourabitoun*, *Ansar al-Dine* and the *Macina Liberation Front* (Joscelyn, 2017). Through this merger, they officially formed a new group that has assumed the moniker of “Jama'at Nusrat ul-Islam wal-Muslimeen” (JNIM), which translates as “Group for the Support of Islam and Muslims”.

This new group will be led by *Iyad Ag Ghaly*, a Malian Tuareg jihadist and longtime leader of Ansar al-Dine (AAD). During the official merger announcement, on March 2, Ghaly emphasized that his new group was part of AQ's international network (Joscelyn, 2017). Since its formation, JNIM has already claimed responsibility for several attacks on Malian soldiers in central Mali (Assanvo and Maïga, 2017) and, more recently, on French forces in northern Mali (Weiss, 2017).

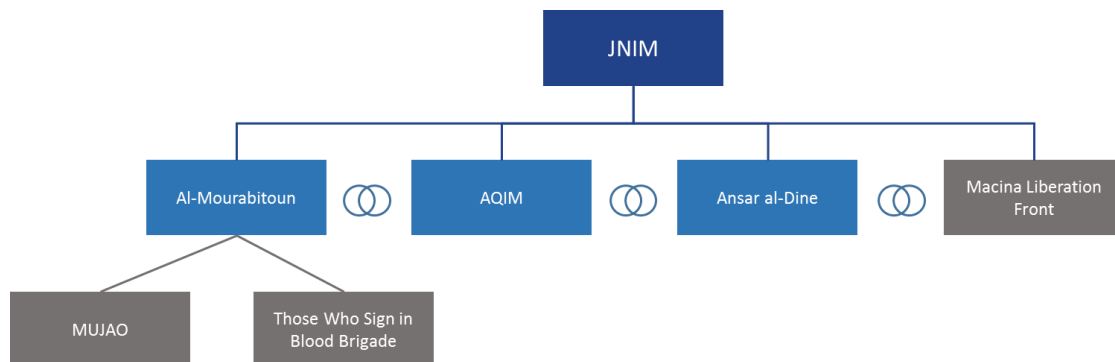
¹ JNIM was formerly known as *Al-Qaeda in the Islamic Maghreb (AQIM)*.

² HTS was formerly known as *Jabhat Fatah al-Sham (JFS)* and *Jabhat al-Nusra* or *al-Nusra Front*. HTS pretends to have split from AQ, a move which many analysts dismiss as artificial (CEP, no date e).

All of these groups had already declared their support to AQ in the past. Moreover, as will be explained in the next section, these groups (except for the Macina Liberation Front which was only created in 2015) were already working together in Mali before the merger.

Yet, even if these groups were already – de facto – linked before the merger, officially announcing it conveys several messages: Firstly, it can be argued that it helps to reduce the perception that AQIM's leadership is primarily Algerian, which allows to mitigate its historical xenophobic stance (Grobbelaar and Solomon, 2015) and open the door to recruits worldwide. Secondly, it allows to spread the impression that IS's influence in the Maghreb/Sahel is weak while encouraging reintegration of potential IS returnees into AQ ranks. Finally, by incorporating the Macina Liberation Front, which is a Fulani minority group, it also acknowledges the value of smaller groups as part of the wider struggle, thereby implicitly encouraging collaboration with, and attacks from, these smaller groups.

Figure 1: JNIM's organisational structure³



Additional background information on JNIM's composing factions is provided in Annex 2.

III CURRENT SECURITY SITUATION IN MALI

Mali has been caught in an ongoing civil war since January 2012, when rebels of the Tuareg tribe — a nomadic people of ethnic Berber or Hamitic-speaking Muslims concentrated in the Sahara—began an offensive against Malian government forces with the intent of creating an independent state in Mali's northern territory of Azawad (CEP, no date c; Larémont, 2013). Tuareg communities have for decades felt marginalized by central states in the region that have made inadequate integration efforts (Larémont, 2013). Especially in Mali, Tuareg

³ Information on inter-group relationships: MUJAO and the Those Who Sign in Blood Brigade have merged in 2013 to form al-Mourabitoun. The Macina Liberation Front was formed in 2015 and is considered Ansar al-Dine's official branch in southern Mali (FATF, 2016). Finally, MUJAO, AQIM and Ansar al-Dine have worked closely together in their administration of Northern Mali in 2012.

demands for either independence or autonomy from the state have been longstanding (Larémont, 2013).

Analysts believe the start of the Malian civil war to be intrinsically linked to the fall of the Qaddafi regime in Libya in 2011 and to the chaos that followed (Larémont, 2013; Zelin, 2017). In Libya, Qaddafi had historically recruited considerable numbers of Tuaregs to join the ranks of his private paramilitary force, the Islamic Legion. In 2011, in the middle of the chaos provoked by the Libyan civil war, these Tuareg fighters left to return to Mali and brought with them considerable quantities of heavy arms and weapons which they had looted from Qaddafi's arsenals (Boas, 2014).

Taking advantage of the chaos provoked by a military coup d'état against the Malian government of *Amadou Toumani Touré* in March 2012, the Tuareg quickly advanced and captured Mali's major northern cities of Kidal, Gao, and Timbuktu (Al-Jazeera, 2012). At that time, the Tuareg rebellion was led by the National Movement for the Liberation of Azawad (MNLA), a prominent rebel group, and backed by Ansar al-Dine (AAD) and the Movement for Unity and Jihad (MUJAO), two local Islamist groups with links to AQIM (Larémont, 2013). Eventually, in April 2012 the MNLA declared the new independent state of Azawad in Mali's north (Callimachi, 2012).

Empowered by the weapons bazaar that flourished in Libya, AQIM-linked Islamists in Mali were able to take full advantage of the lawlessness caused by the country's political chaos (Zelin, 2017). While the MNLA aspired to create either an independent state or an autonomous region for the Tuareg, the two other groups, AAD and MUJAO, aspired to establish a sharia-based Islamic state in northern Mali (Taylor, 2015). As a result, the latter ones quickly began to prioritize their Islamist agendas, leading them to depart from the largely secular Tuareg secessionist cause. Fighting broke out between the MNLA and AQIM-linked groups and by July 2012, the MNLA had been pushed out of the major north Malian cities. In the months that followed, 10 percent of Mali's population and over half of its territory, including the major northern cities of Timbuktu, Gao, and Kidal, fell to terrorist groups AQIM, MUJAO, and AAD (CEP, no date c).

Starting in July 2012, the Islamists governed their newly conquered territories by imposing a strict version of sharia over local Malians in the areas they controlled, including bans on music, stoning of adulterers, and the cutting-off of hands for thieves (Halifa-Legrand, 2012; Taylor, 2015). This show of force allowed AQIM to reignite the promise of a burgeoning Islamic caliphate in Mali, thereby drawing in jihadists and foreign fighter from across Africa and supporters from Europe (CEP, no date c).

Even before the outbreak of the Malian crisis in 2012, northern Mali had already become a breeding ground for diverse groups of Jihadists and militants led by AQIM. These groups not only exploited the fundamental grievances of the local population against their own government and its repressive security forces, but also exploited the Tuareg's Trans-Saharan

smuggling routes to run sophisticated criminal enterprises that involved drug and human trafficking, arms and cigarette smuggling, and the kidnapping of Western nationals for ransom (Boas, 2014). In 2003, for example, Jihadists that would later form AQIM, used isolated parts of the country's north as safe haven for hiding 23 European tourists they had kidnapped in Algeria (CEP, no date c)

The jihadist's reign in Northern Mali lasted into early 2013 when the French military precipitated *Operation Serval* to prevent the jihadists from pushing further into central Mali and oust them from northern Mali (Taylor, 2015). In May 2015, Tuareg-led rebels signed a peace agreement with the Malian government, though violence has since continued to erupt as Islamists continued to pull off isolated attacks against French and Malian forces in the country (Taylor, 2015). The disarmament process negotiated as part of the peace agreement has yet to be implemented (France Info and Courrier International, 2016). Stability and security in the country's North remain fragile and compromised as a result, and the Malian government is still heavily dependent on French and UN forces to maintain security in areas under its control (CEP, no date c).

According to the International Crisis Group (2017b), the Sahel region is, still today, at major risk of escalating conflict which is driven, in particular, by the prospect of a collapsing peace process in Mali. Jihadist groups, including AQIM, AAD and al-Mourabitoun, remain active in Mali. Having been chased out of major towns by the French-led invasion, they are striking provincial and district centres from rural bases rather than trying to hold urban areas. Today, they still seeks to implement sharia and liberate Malians from what they perceive as French colonial legacy (CEP, no date c). As the central government retreats its army from immense rural areas, Jihadists and other violent non-state actors step in to fill the security vacuum. Even though the peace process has historically been widely supported and acclaimed by both Malian politicians and the public, little has been done to tackle the violent and corrupt war economy, and the gap in territory and security control, that allow criminal networks and terrorist groups like JNIM to operate (Bauer *et al.*, 2016).

To sum up, there is still no stability in sight for Northern Mali (Stratfor, 2017) and many Malians remain deeply disenchanted with their government (ICG, 2017b).

Business Model Methodology

I WHAT ARE BUSINESS MODELS USED FOR?

According to Osterwalder and Pigneur (2010), a business model describes the rationale of how an organization *creates, delivers, and captures* value. In other words, it describes the logic of how an organization (i) produces something that is of value ("*creating value*"), (ii) delivers this value to customers ("*delivering value*"), and (iii) is able to generate a revenue as a result ("*capturing value*").

A business model thus aims to reflect an organisation's way of doing business. As stated by DaSilva and Trkman (2013), a business model paints a picture of the company and reveals how the various elements of the business work together at a certain moment in time. Rather than focusing on individual pieces of a business (e.g. its workforce, its production facilities, its customers, its suppliers, etc.), a business model emphasizes the particular interplay between these pieces. Hence, it describes how the different pieces of a business fit together to make the business work.

Business model analysis is thus used by managers to get a "full picture" overview of how their – or someone else's – organisation produces and sells, and generates a profit by having revenues in excess of costs.

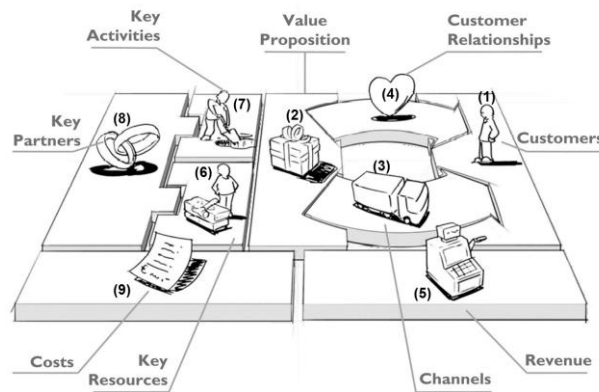
II THE BUSINESS MODEL CANVAS

The tool described in this section is based on the handbook "Business Model Generation", by Alexander Osterwalder & Yves Pigneur.

According to the authors, a business model can best be described through nine basic building blocks that show the logic of how a company intends to make money: (1) *Customer segments*; (2) *Value propositions*; (3) *Channels*; (4) *Customer relationships*; (5) *Revenue streams*; (6) *Key resources*; (7) *Key activities*; (8) *Key partnerships*; and (9) *Cost structure*.

Put together, these nine business model building blocks form the basis for an integrated conceptual tool which the authors have called the *Business Model Canvas*.

Figure 2: Nine integrated building blocks to describe how an organisation “does business”⁴



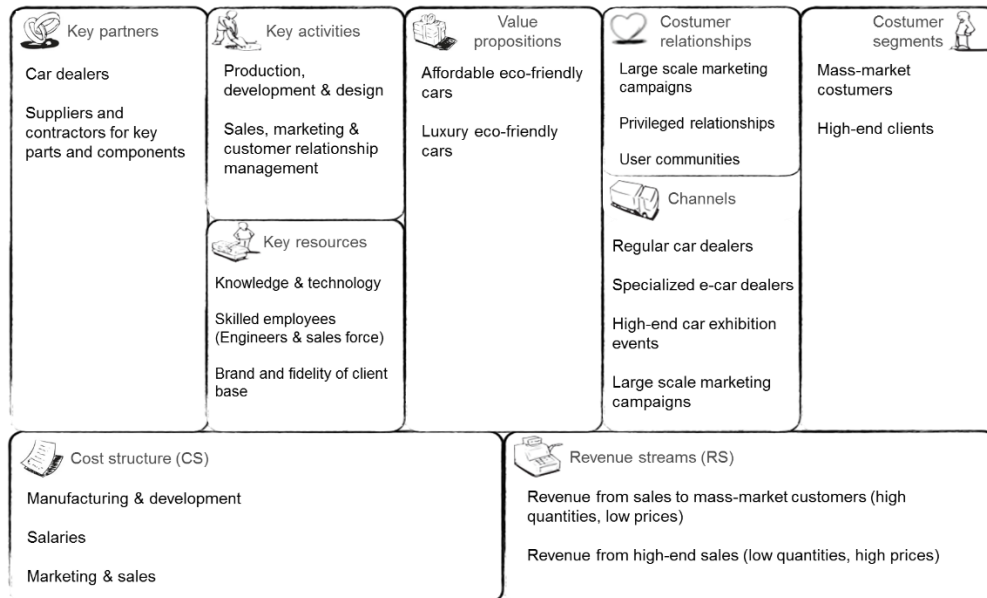
The nine building blocks tie together as follows: An organization serves one or several (1) customer segments. It seeks to solve customer problems and satisfy customer needs by proposing a series of (2) value propositions. These *value propositions* are delivered to customers through communication, distribution and sales (3) channels. Throughout, (4) customer relationships are established and maintained with each *customer Segment*. As a result of successfully delivering *value propositions* to *customers* through *channels*, (5) revenue streams are generated for the organisation. This would not be possible without certain (6) key resources, which are the assets required to offer and deliver the previously described elements by performing a number of (7) key activities. In the process, some activities are outsourced and some resources are acquired outside the enterprise by working with (8) key partners. Ultimately, the *key resources*, *activities* and *partners* result in the (9) cost structure.

By adopting a holistic approach, the Business Model Canvas allows to visualise cause-and-effect relationships as well as the interdependency and relevance of each building block within the overall framework. It can be used to design new business models (e.g. entrepreneurs) or to analyse existing ones. Today, it is widely used by management scholars and practitioners alike (LHBS, 2015).

⁴ Source: Osterwalder and Pigneur, 2010

The following figure illustrates the Business Model Canvas based on the simplified example of an e-cars manufacturer producing both affordable cars for the mass market and high-end luxury cars:

Figure 3: Completed business model canvas, simplified example



Annex 3 provides additional information on the role of each building block when analysing business models based on the Business Model Canvas approach.

III APPROACH, LIMITATIONS AND METHODOICAL CHOICES

This paper analyses JNIM's business model by reconstructing its Business Model Canvas based on the most recent publically available information. This open source intelligence has occasionally been complemented with insights gathered through interviews with subject-matter experts.

There are two inherent data limitations to this type of analysis:

1. **Incomplete information:** The Business Model Canvas prepared by an analyst external to the organisation under scrutiny can never be more than a *business model representation*, i.e. the analyst's best guess of how the actual business model works (Casadesus-Masanell and Ricart, 2009). This is especially true when studying the business model of a terrorist group. The nature of the organisation and the surrounding confidentiality issues make it difficult to access complete, reliable and adequate information.
2. **Timeliness of information:** Because of these information constraints, it will also not be possible to obtain timely data (e.g. not older than 1 year) for each building block. This forcibly means that not all information gathered in this undertaking will have

the same “age”. In completing the Canvas, there is no other choice than to combine information with varying degrees of timeliness.

These limitations are inherent to this type of research and cannot be avoided.

There are also a couple of methodical choices to be aware of when interpreting the results of this research:

1. **Geographical scope:** Notwithstanding the fact that terrorism rarely stops at borders, this research makes the methodical choice of focusing on activities taking place in, or being related to, the geographical space of Mali. As a corollary, certain activities of JNIM taking place outside Mali will not necessarily be captured in this analysis.
2. **Group point of view:** In March 2017, AQIM has merged with *Al-Muratiboun*, *Ansar al-Dine* and the *Macina Liberation Front*, to form JNIM. This thesis makes the methodical choice of using JNIM as the subject of this case study and to analyse its business model from a “JNIM group point of view”. In other words, JNIM is considered one single terrorist group for the purposes of this analysis. As a corollary, internal dynamics, interactions and transactions between factions (*AQIM*, *Al-Muratiboun*, *Ansar al-Dine* and the *Macina Liberation Front*) are not captured. Henceforth, when “JNIM” is used, it will most of the time refer to activity by AQIM, but could occasionally also refer to one of the other three factions.

To finish, it is important to note that terrorism is an inherently dynamic, constantly evolving, phenomenon. The Business Model Canvas, in contrast, provides a snapshot of how JNIM’s business model might have worked at a certain moment based on past observations and evidence. It thus misses one key feature of the phenomenon it sets out to describe, i.e. the fact that terrorism business models are constantly evolving.

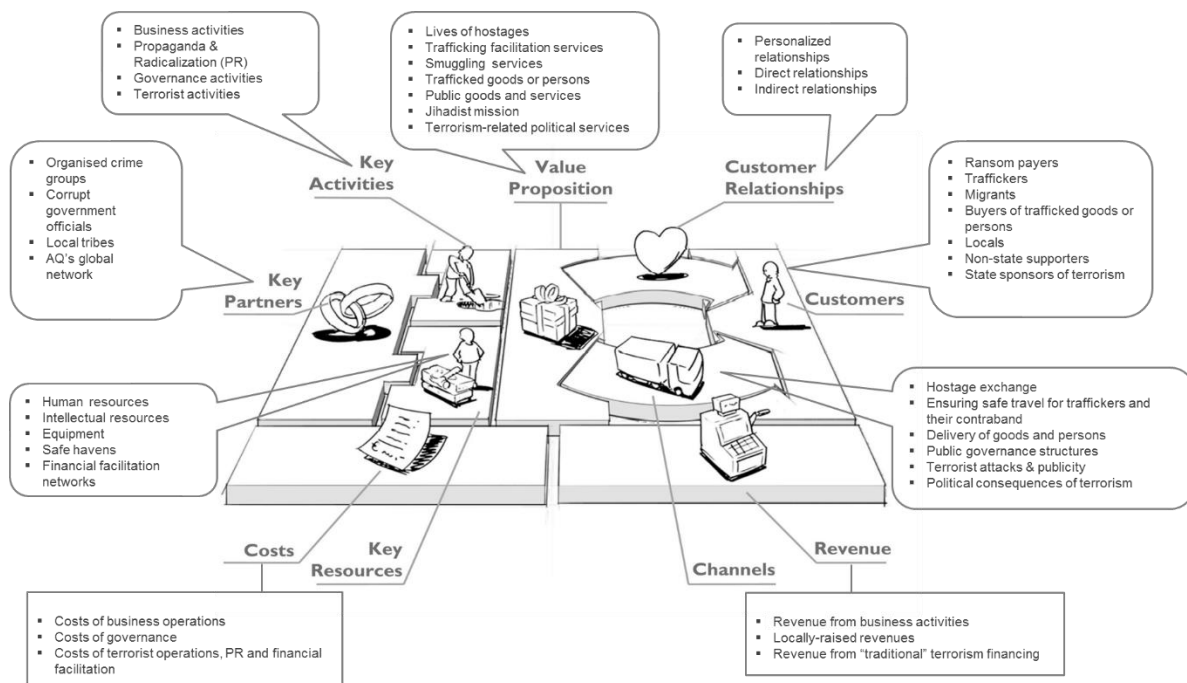
Business Model Analysis

*“We adapt to the **practical reality** wherever it is. As long as we are complying with the orders of sharia and refraining from its prohibitions...we invite our mujahid nation to make the jihad against the modern-day false idol America and its allies their first priority as much as they can afford [to do]. [Such an effort would] **take into account the circumstances of each jihadist arena and what achieves its interests.**”*

—Ayman al-Zawahiri, Brief Messages to a Victorious Nation, Part 5

I DE-CONSTRUCTING JNIM’S BUSINESS INTO NINE BUILDING BLOCKS

The following figure provides a structured overview of JNIM’s way of doing business by de-constructing it into 9 key business components (or “building blocks”):



The sections hereunder provide the detailed analysis leading to the elements presented in this overview.

I.1 JNIM’s customers

The goal of this building block is to identify the different types of customers JNIM does business with. In other words:

Who gives JNIM money?

I.1.1.1. Ransom payers

JNIM acquires a significant portion of its funding through kidnapping and extortion (Countering Extremism Project (CEP), no date d). The group kidnaps Western hostages in the Maghreb or Sahel, or, alternatively, “acquires” hostages from other criminal groups, which it then threatens to kill if appropriate ransom is not paid (Brisard, 2013).

Once hostages are taken, JNIM usually gets in touch with the hostages’ families to communicate its request and start the negotiation process. These families then start legal procedures either with the help of its government, the hostage’s employers or - if applicable, insurance companies.

From a legal point of view, paying ransoms to a designated terrorist group is regarded as terrorism financing and is therefore illegal under international law⁵. In practice, however, both terrorist groups and Western ransom payers have developed innovative approaches to circumvent the terrorism financing prohibition. Terrorist organisations, for example, have reportedly worked with proxies and sub-contractors in the organized crime (which are not considered terrorists), so that any ransom paid to these proxies does not technically fall under the terrorism-financing prohibition (Brisard, 2013). Western governments, on the other hand, have in the past relied on third-parties such as private companies, insurance companies and foreign governments that would later be financially compensated in order to avoid direct payments to a designated terrorist group and to continue pretending that they officially don’t pay ransoms to terrorists (Brisard, 2013).

Often also, private Kidnapping-for-Ransom (KFR) specialists are engaged, sometimes without the knowledge of the government involved, to negotiate with the kidnappers and arrange ransom payments. As reported by the Center for Security Studies (2013), this aspect of KFR has become a lucrative business in its own right, with numerous insurance companies offering complete “*KFR packages*”. If a company has taken out a KFR policy for its top-level executives, it logically expects that ransom is paid in case of a kidnapping. However, this risks setting off a worrisome feedback loop: Kidnappings that result in ransom being paid are a proven incentive for terrorists to engage in additional kidnappings.

It has already been reported that JNIM is very picky when it comes to the selection of its targets. If possible, American and British citizens are to be avoided because of the hard line stance of their governments to not negotiate with terrorists. In contrast, Europeans hostages represent a valuable commodity on the kidnapping black market due to the perceived readiness of their governments to negotiate hostage releases (Alda and Sala, 2014). As a result,

⁵ UN Security Council Resolution 1904 (2009) confirms that the ban on funds, financial assets and economic resources fully applies to the payment of ransoms to individuals, groups, undertaking or entities on the sanctions list. This resolution explicitly forbids payment of ransoms to terrorist groups associated with AQ.

the U.S. government has repeatedly accused European governments of financing terrorists through ransoms (Center for Security Studies (CSS), 2013).

I.1.2. Traffickers

JNIM acquires another significant part of its funding from smugglers and traffickers who pay a “tax” (for example a percentage of the market value of the trafficked goods) in exchange for permission and safe transit through JNIM-controlled trafficking routes in Mali.

Drug traffickers (mainly cocaine from South America, especially Colombia, but also Venezuela, Peru, Bolivia and Brazil, as well as other types of drugs) represent the bulk part of this customer segment (Diálogo, 2010; Caulderwood, 2015a). These include South American drug cartels and rebel groups, predominantly the Colombian rebel group FARC (Diálogo, 2010), who have relied on JNIM-controlled trafficking routes through the Sahara to smuggle cocaine into Europe (Hirsch, 2013). These drug cartels have reportedly struck win-win deals with JNIM where the cartels provide cocaine and transatlantic transport while JNIM protects drug convoys (Banco, 2015) and shares its knowledge of the desert routes to smuggle the narcotics up north to the Mediterranean (Alaoui, 2013).

Since JNIM started getting involved in drug trade facilitation more than 10 years ago (Hirsch, 2013), European demand has grown so much that some observers believe cocaine traffickers to be increasingly replacing ransoms payers as JNIM’s most important source of revenue (Diálogo, 2010; Caulderwood, 2015a).

West and North African groups involved in drug (increasingly methamphetamine-type drugs) oil, arms, cigarettes and human trafficking also pay taxes to JNIM for using its trafficking routes. (Doward, 2013; Caulderwood, 2015a; UNODC, 2015).

For JNIM, the “human trafficking” business segment has been on the rise in recent years, mainly because the fall of Gadhafi in Libya and the sharp increases of migrants trying to reach Europe have caused a dramatic proliferation of “taxable” groups involved in human trafficking and smuggling (Caulderwood, 2015a).

I.1.3. Migrants

JNIM’s third customer segment are undocumented migrant workers, mainly from sub-Saharan Africa, who pay JNIM to be smuggled up north to Mediterranean countries (Larémont, 2011).

These workers pay JNIM to be smuggled from the northern edge of the African savannah (particularly from Nigeria, Ghana, and Burkina Faso) to intermediary cities in the Sahara (especially Kidal in Mali, Tamanrasset in Algeria, and Agadez in Niger). From there, JNIM organizes their transport to Mediterranean cities like Tripoli or Algiers where they can try to either purchase their entry into Europe through Italy, Spain, Greece, or Malta, or to find work in North Africa (Larémont, 2011).

As mentioned above, the numbers of migrants trying to reach Europe have been steadily rising over the past couple of years. In 2010, roughly 4,500 people were picked up by Italian authorities trying to cross from Libya into Europe via the Mediterranean Sea. By 2014, this number had reached 170,000, among which more than 50,000 migrants from sub-Saharan Africa (Caulderwood, 2015a).

I.1.4. Buyers of trafficked goods or persons

Buyers of goods or persons that JNIM traffics itself pay JNIM to buy these trafficked goods or persons. These customers can either be end-consumers or other traffickers further down the supply chain.

I.1.5. Locals

Locals (individuals and businesses) in areas in which JNIM exerts a certain level of control or influence pay a “tax” to JNIM in exchange for public goods or services such as governance, security, electricity, healthcare, education,... (Halifa-Legrand, 2012). Where this “tax” is in exchange for security specifically, the scheme becomes a “protection racket” (CEP, no date f).

I.1.6. Non-state supporters

Non-state supporters are individuals or organisations (typically charities, sometimes businesses) from Western or Middle-Eastern countries who make direct or indirect donations to JNIM.

Non-state supporters buy into JNIM’s Jihadist mission, i.e. they do not pay money to JNIM in exchange for material goods or services but to contribute to JNIM’s ideological and political mission. For some of these supporters, paying money to JNIM might also be seen as a way to fulfil perceived religious obligations, especially given that AQ has historically proven adept at leveraging the religious duty of extremist sympathizers as a way to obtain funding (Comras, 2005; Lowe, 2013).

In 2013, for example, there were reports of Qatari and Saudi charities providing support and funding to JNIM Jihadists operating in Mali (Brisard, 2013). JNIM’s non-state supporters also include individuals from, or residing in, Western Europe. Various sources (CEP, no date f; Laub and Masters, 2015; Stanford University, 2016) have reported that European “cells” (i.e. charities, financial intermediaries, or businesses) are a source of JNIM’s revenue and that individuals suspected of collecting donations for the group have been arrested in Germany, Italy, the Netherlands, Portugal, and the UK.

The Jihadist mission is – among other things – delivered to these supporters through the news of terrorist attacks. In fact, as Burke (2015) notes, the successful execution of attacks by AQ has historically produced floods of donations, primarily from devoutly religious and wealthy individuals in the Gulf.

There are also instances of people not being aware that their donations were being redirected to JNIM or other terrorist groups. In fact, AQ is known to run an international network of

“front organisation” of which many pose as legitimate NGOs and charities (Lowe, 2013). The manipulation scheme works so as to lure donors into making donations believing that their funds will be used for legitimate charitable purposes. Instead, the front organisation secretly transfers the money donated by these donors to AQ-related organisations. These donors thereby become unintentional supporters of terrorism.

1.1.7. State sponsors of terrorism

State sponsors of terrorism are governments that provide financing – directly or indirectly – to JNIM or other AQ affiliates.

In its latest Country Reports on Terrorism, the U.S. State Department lists three State Sponsors of Terrorism, namely *Iran*, *Sudan*, and *Syria* (U.S. Department of State, 2017). It means that – in the eyes of the U.S. Secretary of State – these governments have repeatedly provided support for acts of international terrorism in the past⁶. Other countries that have also repeatedly been accused of sponsoring terrorism are the Gulf States, in particular *Saudi Arabia* and *Qatar* (Bauer and Levitt, 2017). As regards JNIM specifically, the Algerian government has in the past accused Iran and Sudan of funding the group (CEP, no date f).

State sponsoring of terrorism can be driven by different political considerations, as for example using a militant or terrorist group as a means to further foreign policy-related goals abroad or to improve the government’s image as a legitimate religious leader at home (typically the Gulf States).

As state sponsors, both Iran and Saudi-Arabia are known for using their “terrorist” proxies in the pursuit of their respective foreign policy agendas. In Yemen, Saudi Arabia has for example backed local Yemeni forces despite knowing that these forces were partnering with Al-Qaeda in the Arabian Peninsula (AQAP) in their fight against the Iranian-backed Houthi rebels (Zelin, 2017). Saudi Arabia has thus indirectly provided resources and support to AQAP as part of a wider geopolitical strategy. Iran, on the other hand, has provided support to Hezbollah, Palestinian terrorist groups in Gaza, and various others in Syria, Iraq and throughout the Middle East (U.S. Department of State, 2017).

Gulf states like Saudi-Arabia, Kuwait and Qatar are known for indirectly sponsoring terrorist groups by spreading their hardline Salafist-ideology throughout the globe. Saudi Arabia, for example, has reportedly financed Mosques and Islamic charities abroad which were known to transfer part of the funds to terrorist groups linked to AQ (CEP, no date d; Bauer and Levitt, 2017).

⁶ To designate a country as a State Sponsor of Terrorism, the Secretary of State must determine that the government of such country has repeatedly provided support for acts of international terrorism. Once a country is designated, it remains a State Sponsor of Terrorism until the designation is rescinded in accordance with statutory criteria. A wide range of sanctions are imposed as a result of a State Sponsor of Terrorism designation (U.S. Department of State, 2017).

Finally, the government of Niger is suspected of having sponsored JNIM at least once in the pursuit of political objectives. In 2008, the Canadian diplomat and UN special envoy Robert Fowler was kidnapped by JNIM-linked militants in Niger. As Fowler later revealed, he believes that the government of then president Mamadou Tandja arranged for information relating to his movements to be passed to JNIM (Freeze, 2011). Given that President Tandja was granting himself special security powers allowing him to stay in power past the expiry of his term, Folwer argues, the President had every reason to want his investigations to fail or stop. If these accusations are true, it means that Niger has sponsored JNIM by providing it with information that enabled it to kidnap UN special envoy Robert Fowler and generate U.S. \$934,000 in ransom revenue a result (The Associated Press, 2013).

1.2 JNIM's value propositions

The goal of this building block is to understand the particular goods or services (i.e. the value propositions) JNIM offers to its customer segments. In other words:

What do JNIM's customers give money for?

1.2.1. Lives of hostages

Ransom payers pay JNIM in order to get hostages back *alive*.

1.2.2. Trafficking facilitation services

Traffickers pay a tax to JNIM in exchange for access to, and safe usage of, the trafficking routes it controls. In other words, JNIM sells *trafficking facilitation services* to them.

JNIM profits from the illicit trade by simply taxing the movement of the drugs through territory its controls, rather than being involved in the movement of the drugs themselves (Caulderwood, 2015a). This tax represents a kind of protection money. The traffickers are in fact required to "hire" JNIM to provide them with "security" if they wish to travel through JNIM-controlled territories in the Sahel "safely" (Banco, 2015).

1.2.3. Smuggling services

Migrants pay JNIM to be smuggled to North Africa and, possibly, further to Europe. JNIM thus sells *smuggling services* to those migrants.

1.2.4. Trafficked goods or persons

Buyers of trafficked goods or persons pay JNIM in exchange for these *trafficked goods or persons*. Trafficked goods sold by JNIM have included cigarettes, oil, used cars, drugs (mainly marihuana/hashish) and weapons.

1.2.5. Public goods and services

Locals pay "taxes" to JNIM in exchange for *public goods and services*.

Where JNIM exerted implicit or explicit control over an area, it has reportedly taken on a government-like role providing governance based on a strict interpretation of Sharia, and other social goods or services (such as security, housing and healthcare). When it occupied parts of Northern Mali in 2012, for example, JNIM delivered basic governance and provided rudimentary social and public services, particularly in Kidal and Timbuktu (Lebovich, 2017b). It also financed development projects such as house construction and well digging, and organized medical clinics for nomadic populations, handing out medicine and performing free examinations for both people and animals (Lebovich, 2017b). Boas, in turn, (2014) reports for example that, in 2013, JNIM has treated the sick and provided medicine and cellular network access to local populations in northern Mali in areas it controlled. In Timbuktu, JNIM even communicated a “green” cell phone number that people could call if they were harassed by MNLA members or bandits (Boas, 2014).

I.2.6. Jihadist mission

Non-state supporters pay money to JNIM because they identify with, and value, the *jihadist mission* for which JNIM stands. At the same time, this value proposition also provides a powerful ideological resource enabling JNIM to attract and retain new recruits and supporters worldwide. Furthermore, as will be explained later on, JNIM’s Jihadist mission is a central element of its PR activities.

I.2.7. Terrorism-related political services

State Sponsors of Terrorism pay money to JNIM (directly or indirectly) as part of a wider political strategy. JNIM can therefore be seen as selling *terrorism-related political services*. This suggests that there is a market for terrorism-related political services, in which states sponsors act as principals and groups like JNIM as contracting agents.

I.3 JNIM’s delivery channels

The goal of this building block is to understand the different types of channels through which JNIM reaches its customers. In other words:

How do JNIM’s customers get what they are paying for?

I.3.1. Hostage exchange

Hostages are delivered to the ransom payers through *physical hostage exchange*.

While the KFRE business has provided significant funding to JNIM itself, it also enriches a series of facilitators (usually subcontractors, spies or agents from local organized crime groups or local tribes and communities) who raise money by being involved in the *hostage exchange* process. The international terrorist financing expert Jean-Charles Brisard (2013) reports that facilitators chosen or accepted by JNIM to negotiate the release of Western hostages usually receive a percentage ranging between 10% to 50% of the total negotiated ransom (Brisard, 2013).

Finally, some foreign governments, Mali and Burkina Faso in particular, have occasionally also provided facilitation services to western governments in the context of hostage exchanges (Brisard, 2013). Burkina Faso, for example, is known to have opened lines of communication with al-Qaeda under successive Presidents Compaoré and Kaboré. These lines have reportedly been used to negotiate the release of several Western hostages (CEP, no date b).

1.3.2. Ensuring safe travel for traffickers and their contraband

JNIM delivers value to traffickers by ensuring safe travel for their shipments along JNIM-controlled trafficking routes in Mali.

1.3.3. Delivery of goods and persons

JNIM itself organises the transport and delivery of the migrants and of trafficked goods and persons to their agreed upon destinations.

1.3.4. Public governance structures

In the case of public goods and services, the value proposition is delivered to the locals by setting up *public governance structures* in areas under JNIM control. As a result of these public governance structures, public goods or services can be provided either *directly* (e.g. providing healthcare or electricity) or *indirectly* (e.g. enforcing strict penal punishments based on Sharia might allow to reduce petty crime, thereby providing a feeling of security and stability to the locals).

1.3.5. Terrorist attacks (and the publicity thereof)

In the case of the Jihadist mission, the value proposition is delivered to non-state supporters through *terrorist attacks (and the publicity thereof)*.

Terrorist attacks – the more spectacular the better – are a powerful tool for terrorist groups like JNIM to deliver their value proposition to their non-state supporters. In fact, they allow JNIM to showcase progress achieved in the pursuit of its Jihadist mission and non-state supporters to assess the uses that have been made of their financial support, including the way in which they have contributed to the Jihadist mission and cause.

This can be understood by analogy with NGOs. NGOs also rely on external funding from non-state or state supporters to carry forward their mission. Therefore, once per year at least, they will issue an annual report outlining key actions and projects undertaken in the pursuit of their objectives. This allows donors to evaluate the NGO's progress, and NGOs to justify the funds put into it.

Seeing terrorist attacks as part of the channels through which JNIM delivers its value propositions helps to explain the organisation's withdrawal from its traditional strongholds in North Africa. In fact, the successful preventative actions taken by the Algerian and Tunisian intelligence agencies have significantly reduced JNIM's capabilities to carry out terrorist

attacks with wide media coverage in these areas. According to Barak (2016), this has led the organization to move its operations to the Sahel and West Africa region.

At the same time, terrorist attacks also allow JNIM to prove its relevance to the Jihadist scene and to compete for financing and recruits against other Jihadist groups. Analysts (Humud *et al.*, 2014; Devanny, 2016) for example expect that JNIM will react to IS's potential resurgence in the Maghreb (ICG, 2017a) by "*carrying out sensational terrorist attacks likely to receive wide media coverage*" (Barak, 2016).

Finally, JNIM relies on its PR activities, as well as on the internet and the media, to spread the news of its attacks to the public.

1.3.6. Political consequences of terrorism

In the case of terrorism-related political services, the value proposition is delivered to state sponsors of terrorism through the *political consequences of terrorist activity* which these sponsors have helped to finance. Saudi-Arabia for example provided indirect support to AQAP in Yemen because it believed that AQAP's activity would allow to counterbalance mounting Iranian influence in the region.

1.4 JNIM's customer relationships

The goal of this building block is to understand the different types of relationships that JNIM maintains with its customer segments. In other words:

What are the relationships between JNIM and its customers?

1.4.1. Personalized relationships

Given that ransoms are negotiated on a case-by-case basis, JNIM enters into personalized relationships with ransom payers. Also, even where Western governments use intermediaries to hide the origin of their payment, ransom and hostage releases are still negotiated on a case-by-case basis.

It seems plausible that JNIM also enters into personalized relationships with traffickers, especially with high-profile ones like the Colombian FARC (this relationship might however have come to an end by now as a result of the recent Colombian peace process).

1.4.2. Direct relationships

In doing business with migrants, buyers and locals, JNIM directly interacts with its customers.

The same can be said of the relationship between JNIM and its wide diaspora of non-state supporters. In fact, these supporters directly interact, knowingly or unknowingly, with charities or other front organisations that can be seen as extensions of JNIM's international network.

1.4.3. Indirect relationships

The relationships between JNIM and state sponsors of terrorism are likely to be indirect ones, given the precautions governments take to not be openly associated with terrorist groups.

1.5 JNIM's revenue streams

The goal of this building block is to identify the revenues that JNIM derives from selling its value propositions to its customers. In other words:

What are the revenue streams generated by JNIM's business model?

JNIM's revenues include *ransoms, taxes (including protection money) from traffickers and locals, smuggling fees, revenue from sales of trafficked goods or persons, donations, and sponsoring.*

These revenues can be divided into three major revenue streams according to how they were generated:

1. Revenue from business activities: ransoms, taxes from traffickers, smuggling fees, and revenue from sales;
2. Locally raised revenues: taxes paid by locals;
3. Revenues from "traditional" terrorism-financing: donations from non-state supporters and sponsoring from state sponsors.

Given the criminal nature of these activities, and Western government's official stance of not negotiating with terrorists, reliable data on these revenues is hardly available. Any values provided are pure estimations.

As regards the ransom payments, the New York Times estimates that 91.5 million dollars have been paid to JNIM over the period 2008 to 2013 (see Annex 4). Given that around 20 hostages have been released over this period (Callimachi, 2014), this suggests an average payment per hostage of 4.6 million dollars between 2008 and 2013. Total annual ransom revenues appear moreover to be steadily rising over the period (Nossiter, 2012): from 3.2 million dollars in 2008 to 40 million in 2013 (Callimachi, 2014). The data in Annex 4 reveals that this increase is driven by JNIM's ability to negotiate higher average ransoms (average estimated ransom per hostage was 1.6 million dollars in 2008 and 10 million in 2013) rather than its ability to kidnap more hostages.

As regards taxes paid by traffickers, UNODC estimated that, in 2008, around 15 tons of cocaine transited through weak West African states such as Mali, Niger, Mauritania, and Guinea Bissau on its way to Europe (UNODC, 2010). More recent estimates suggest that between 30 and 40 tons of cocaine come through West Africa every year en route to Europe (Caulderwood, 2015a).

While a great deal of the profits go to the South American drug cartels, it can be argued that JNIM is getting a big cut too, and for relatively little effort. Testimonies from former JNIM

members in Mali indicate they protected cocaine shipments from West Africa, through the Sahara, and up to Spain at a fee of U.S.\$ 4.200 per kilo⁷ (Baldauf, 2010). Hence, assuming hypothetically that JNIM becomes involved in most West African drug trade (30 tons), this indicates that its revenues from trafficking facilitation could potentially rise up to 126 million dollars (= 30.000 x U.S.\$ 4.200) per year.

As mentioned earlier, other types of traffickers (humans, cars, cigarettes, ...) are also required to “hire” JNIM to provide them with security if they wish to travel through JNIM-controlled territories in the Sahel. It has for example been reported that nearly 100 percent of all the cigarettes sold in the Sahel are smuggled through routes controlled by JNIM or other related groups (Bauer *et al.*, 2016). Smugglers have also reported that it costs them up to \$50,000 per trip to travel through JNIM lands “safely” (Banco, 2015). It can therefore be argued that JNIM is able to make good money for little effort and low risk as it simply grants access the same routes it is already protecting for the drug trafficking anyway. Finally, smuggling migrants along these same routes provides yet another way for JNIM to capitalize on its supply chain network: Migrants from places such as Sierra Leone, Niger, Burkina Faso and Mali reportedly pay up to \$500 to be taken north to Libya, from where they can get on a boat and head to Europe (Banco, 2015).

1.6 JNIM’s key resources

The goal of this building block is to identify the key resources on which JNIM relies to make its business model work. In other words:

What does JNIM need to be able to produce and deliver its value propositions?

1.6.1. Human resources (members)

Operations such as kidnappings, trafficking facilitation and large scale smuggling (i.e. JNIM’s business activities) as well as terrorist attacks, wars and insurgencies (i.e. JNIM’s terrorist activities) demand planning, coordination, project management, training, use of sophisticated equipment, use of encrypted communications, and more. JNIM therefore relies on both unskilled (e.g. fighters and other workers) and skilled (leaders, commanders, trainers, advisors, technicians, explosives experts, ICT experts, security experts, financial facilitators, accountants etc.) workers.

While AQIM was historically established as a purely Algerian organisation, the majority of JNIM’s members are today believed to be from Mali and Mauritania (CEP, no date a; Grobbelaar and Solomon, 2015).

⁷ On an estimated market value of U.S.\$79.500 in Western Europe, this means that JNIM imposes a 5,3% (= 4.200/79.500) “Duty-tax” on South American cocaine.

Given that JNIM – similarly to AQ in general - draws its membership from disillusioned Muslims (Grobbelaar and Solomon, 2015), its ability to recruit the human resources it needs is closely linked to the success of its PR (propaganda and radicalization)-activities. This also applies to the few recruitment rings that JNIM is believed to still have in Algeria. In fact, these rings target Algerian youths, and jobless youths in particular, for recruitment (CEP, no date a). These jobless youths are likely to feel disenfranchised and disenchanted with their country's government and therefore at risk of falling prey to the groups PR activities.

However, financial incentives also play a determinant role in JNIM's recruitment strategy. Especially in the Sahel - one of the poorest regions of the world - recruits are believed to be initially drawn to JNIM for financial gain rather than ideological motives. As Grobbelaar and Solomon (2015) have highlighted, the group serves as an attractive employer for impoverished desert youth, while the instability within Sahelian countries provides JNIM with room to conduct lucrative operations out of which convincing salaries can be paid. Grobbelaar and Solomon note that JNIM first "buys" recruits' loyalty and then uses radicalisation to strengthen loyalty and retention of those recruits that joined, initially, for financial reasons.

1.6.2. Intellectual resources

For JNIM, intellectual resources include *ideology* and *knowledge & know-how*.

a. Ideology

The ideology JNIM "sells" through its Jihadist mission represents a powerful intellectual resource of its organisation. Similarly to a strong company culture, it helps with attracting new recruits and retaining existing ones. Moreover, it also fuels JNIM's PR activities, thus allowing these activities to be more successful at radicalizing recruits and local communities, and at wooing potential non-state supporters.

Terrorism analysts usually present "ideology" as being part of the objectives that Jihadist organisations are pursuing. This thesis, however, indicates that the opposite point of view might also be true. In fact, since ideology is a key resources of JNIM's business model, it should be considered as a means for achieving organisational objectives (like attracting members and funding), rather than the other way around.

b. Knowledge & Know-how

Accumulated *knowledge and know-how* is an important resource for JNIM because it enables the group to develop and adapt by learning from experience and past mistakes. The knowledge base it has developed over decades of insurgent activity in Algeria and elsewhere represent an important intellectual resource for future terrorist and military activities. Knowledge is also relevant for JNIM's business activities. The group is for example known to have recruited locals from Northern Mali because of their geographical knowledge of the trafficking routes.

Knowledge & know-how are often developed internally but can also be acquired externally, either through recruiting (e.g. by recruiting experts in explosives) or by working with local tribes and communities.

Knowledge & know-how is also exchanged between members of AQ's global network. For example, in 2012, *Nasir al Wuhayshi*, the leader and Emir of al-Qaeda in the Arabian Peninsula (AQAP), addressed a series of letters to *Abdelmalek Droukdel*, the leader of AQIM, to share the lessons that could be drawn from AQAP's campaigns in Yemen (Roggio, 2013).

Finally, trainers and advisors (human resources) are crucial in developing, maintaining and exploiting JNIM's knowledge base.

1.6.3. Equipment

To be operational, JNIM needs various types of equipment such as *military equipment*, *transport equipment*, and *ICT equipment*.

JNIM needs *military equipment* (e.g. weapons, ammunition, explosives, etc.) for its fighters to carry out terrorist attacks and for its explosives experts to fabricate bombs, but also for business activities like KFRE and trafficking facilitation.

As a result of the unrest in Libya, JNIM was able to gain access to military equipment in significant quantities, including heavy weapons from abandoned Libyan stocks such as shoulder-mounted missiles, heavy mortars, artillery, surface-to-air missiles and anti-tank mines (Grobbelaar and Solomon, 2015). JNIM's weapons supply chain is believed to run from Libya to Mali by passing through Northern Niger. In fact, in October 2014, French forces intercepted a large AQIM convoy in Northern Niger that was transporting weapons from Libya to Mali (Al-Jazeera, 2014). Other observers are concerned that the Libyan Civil War has made JNIM one of the best armed AQ franchises in the world (Grobbelaar and Solomon, 2015).

JNIM also needs *transport equipment* (e.g. cars, trucks, jeeps,...) for both terrorist activities and business activities.

Finally, JNIM needs sophisticated *ICT equipment* (e.g. encryption technologies, media & publishing tools,...) for PR activities and terrorist activities. Sophisticated communication equipment, especially encryption, is moreover crucial to be able to communicate with AQ's global network safely as well as to ensure operational security ("opsec") in the planning and coordinating of terrorist activities.

1.6.4. Safe havens

Safe havens and refuges in the mountains, forests and deserts are crucial resources for terrorist organisations because they provide the geographic space needed to find shelter, establish safe

zones, home base, housing, training camps and develop knowledge⁸ (Roggio, 2013; Hoffman, 2017).

The possibility for groups like JNIM to establish safe havens in a certain area is closely intertwined with a condition described as *failed state environment*. According to Mechling (2014), failed or failing states pose as attractive environments to transnational terrorist organizations. Failed state environments are areas where the official political and/or economic system has become so weak that the government is unable to provide basic functions such as security, healthcare, food and water, education, etc. In such environments, the resulting power vacuum provides opportunities for non-state actors like JNIM to step in and establish a safe haven.

One way to establish a safe haven in a region with weak government presence is by gaining the support of, and integrating with, local tribes and communities (Stratfor, 2017). Raleigh and Dowd (2013) even argue that terrorists can only fully enjoy safe havens to hide or train if they are able to secure the support or silence of the local groups or populations already present in the area. It is therefore not surprising that JNIM has invested significantly in establishing ties with local communities throughout the Sahel by following a deliberate strategy of social and economic integration (Raleigh and Dowd, 2013). In Northern Mali, for example, JNIM did not only actively marry its commanders into local tribes and communities, but also took up their political causes like the secession ambitions of the Tuareg people in Mali (Grobbelaar and Solomon, 2015). Also, the stronger the ties with the local communities, the easier JNIM fighters can hide among, or blend in, local populations, even in areas where government presence or control is more substantial (Boas, 2014).

Since Mali became independent of France in 1960, its vast northern region, which is mostly desert and home to just 10 percent of its population of 15 million, has been largely neglected by authorities in Bamako (Caulderwood, 2015b). In 2013, the possibility to find shelter in these regions provided secure fall-back positions to JNIM when faced with the invasion of the French troops. According to Roggio (2013), it is thanks to this safe haven that JNIM's top leaders and fighters could survive and escape the French offensive.

Up to this day, JNIM enjoys a safe haven in Northern Mali in an area located in the northern half of the "Azawad" territory claimed by the Tuareg, ranging from North of Kidal up to the border with Algeria (Caulderwood, 2015b; France Info and Courrier International, 2016).

1.6.5. Financial facilitation networks

JNIM's global and local *financial facilitation networks* are a key resource thanks to which JNIM is able to access revenues from "traditional" terrorism-financing.

⁸ As Hoffman (2017) explains, sanctuary permits more scope for terrorist research and development efforts to produce various CBRN (Chemical, Biological, Radiological, and Nuclear) weapons of destruction.

JNIM's affiliation to AQ's global network (key partner) gives it eased access to AQ's international financial facilitation networks. These networks are believed to make use of shell companies, shell banks, offshore trusts, etc. to hide their assets and to protect the identity of individuals, charities and businesses, or other entities they have been used to raise money (Comras, 2005; Lowe, 2013).

Even though AQ's financial facilitation networks have certainly been affected by the tightening-up in regulations and oversight related to terrorism-financing and money laundering that followed 9/11, several countries continue to attract offshore business enterprises behind which AQ can hide. Some experts talk about "permissive jurisdictions for terrorist financing" and accuse such countries of inviting "irregular" business activities by retaining a liberal "no look" policy (Lowe, 2013; Bauer and Levitt, 2017).

1.7 JNIM's key activities

The goal of this building block is to identify the key activities that JNIM performs to make its business model work. In other words:

What does JNIM do to produce and deliver value propositions to its customers?

1.7.1. Business activities

JNIM's *business activities* include various criminal undertakings such as *Kidnapping for ransom and extortion (KFRE)*, *trafficking facilitation*, *smuggling*, *trafficking*, and *extortion*. Similarly to activities carried out by legal businesses, their objective is first and foremost to make money. The revenue generated through these highly profitable activities allows to pay attractive salaries to recruits and other human resources and to acquire equipment.

a. *Kidnapping for Ransom and Extortion (KFRE)*

Through this activity, JNIM is able to sell hostages to ransom payers and to generate revenue in the form of ransom payments or other types of extortion (e.g. using KFRE to gain access to information, tips, safe codes, to negotiate prisoner swaps, etc.) as a result. In order to successfully carry out this activity, JNIM is dependent on its human resources, its equipment and its safe havens (to be able to hide the hostages).

While JNIM has orchestrated numerous kidnappings by itself, it has reportedly also conducted "business" with local organized crime groups (key partner) who have taken care of the kidnapping operation only to resell the hostages to JNIM later on. In the Fowler case, Niger's president, Mamadou Tandja, has notably blamed the Canadian diplomats' abduction on a rebel group of Tuareg nomads who resent uranium mining companies from Canada operating in the area for allegedly pillaging their land without proper compensation for residents (CBC News, 2009). This idea was supported by western intelligence officials who believed the Tuaregs may have traded the hostages to JNIM against compensation (CBC News, 2009).

b. Trafficking facilitation

Through this activity, JNIM is able to sell trafficking facilitation services to traffickers and to generate revenue in the form of taxes and protection money as a result. In order to successfully carry out this activity, JNIM is dependent on its human resources, its equipment and its partnerships with local tribes.

JNIM's quasi-monopoly on violence in large parts of the Sahel puts it in a position to offer protection to traffickers along these routes, which has in turn enabled it to tax whatever illicit trade goes through these routes even if it does not directly participate the trade itself (Brisard, 2013; Lowe, 2013).

According to Schindler, JNIM taxes traffickers along established trafficking networks (Schindler, 2017). For generations, these networks were controlled by local Tuareg, Tebu and Bérabiche tribes who made of living out of guiding traders carrying goods to water and fuel dumps in the desert (Larémont, 2011; Hirsch, 2013). And even though their convoys today are made of 4x4s with global positioning systems instead of camels, they are still the experts in trafficking anything from weapons to cigarettes (Caulderwood, 2015a). JNIM therefore collaborates with these local tribes to run large-scale trafficking operations.

In the case of cocaine trade facilitation, drug traffickers first move the drugs from South America to West Africa by small planes or boats (BBC News, 2009) and, as of 2010, also by larger planes in order to meet a growing European demand (Hawley, 2010). Generally, the drugs cross the Atlantic from South America to Western Africa over the infamous “Highway 10” -- a route along the 10th parallel that is the shortest distance between the two continents (Mazzitelli, 2011). From there, the path to Europe goes north, usually through Mali’s weakly policed (Caulderwood, 2015a), and JNIM-controlled, trafficking routes. The Timbuktu area, in particular, is still considered a stronghold for JNIM and a hub for trafficking cocaine from South America by air, which is then smuggled into Europe (Caulderwood, 2015a).

Figure 4: Cocaine trade route from South America through West Africa and into Europe⁹



⁹ Source: The Guardian, 2013 (<https://www.theguardian.com/world/2013/may/02/cocaine-flows-through-sahara-al-qaida>)

c. *Trafficking and smuggling*

Through this activity, JNIM is able to sell smuggling services to migrants and its own trafficked goods or persons to buyers of these goods or persons. This allows to generate revenue in the form of smuggling fees and sales. In order to successfully carry out this activity, JNIM is dependent on its human resources, its equipment (especially transport and communication) and its knowledge of the smuggling and trafficking routes.

If JNIM is taxing drug trade along “its routes” on the one hand, it is on the other also using these same routes for its own smuggling and trafficking operations. These involve goods such as *cigarettes, automobiles, oil, arms* and, potentially, *natural resources* and others, as well as *persons*, which JNIM transports from point A to point B of the trafficking chain.

As explained earlier, JNIM also uses its trafficking network to smuggle migrants. From Mali, these migrants follow routes similar to the cocaine on its way to Northern Africa or further into Europe, i.e. from Mali to Spain by passing first through western Algeria and Morocco or from Mali to Greece or Italy by passing through south-western Algeria and central Libya (France Info and Courrier International, 2016). Especially the northern city of Gao, in Mali – whose economy is largely dependent on the economic spillovers of trafficking – is considered one of the main hubs and dispatchers for human trafficking (Banco, 2015).

1.7.2. Propaganda & Radicalisation (PR)

JNIM's *PR activities* focus on *communications, propaganda* and *radicalization*. This also covers the extensive use of social media as a propaganda, recruitment and fundraising tool.

JNIM's PR activities are crucial in maintaining and growing its base of non-state supporters and members. In combination with JNIM's strong media presence, these activities add to the group's overall attractiveness and enhance its recruitment capabilities both regionally and internationally (Gacom, 2016). To support these activities and to take care of external communications, JNIM has in the past set up its own media wing, “*Al-Andalus Media Productions*” (CEP, no date f).

JNIM's PR strategy is articulated around local grievances and feelings of social injustice and oppression, and exploits narratives of events perceived as having negative consequences for Muslims (Grobbelar and Salomon, 2015). Finally, the role of prisons as a potential fertile ground for JNIM's PR activities should not be underestimated – as exemplified by the development of the Islamic State in Iraq.

1.7.3. Governance activities

Through this activity, JNIM governs territory and delivers public goods and services to locals.

While allowing to generate revenue in the form of taxes, it is probable that these revenues will be offset by the significant costs of governance that such an activity entails. In fact, multiple cost-generating elements must be combined, and continuously provided for, for JNIM to be

able to successfully carry out such governance activities: human resources, not only fighters but also more skilled ones, equipment and either a safe haven or an environment in which public authorities are weak, corruptible, or both.

The act of governing territories does however still make sense for JNIM from a business model point of view. In fact, thanks to the substantial publicity this generates (like in Northern Mali in 2012), it provides a powerful delivery channel (similarly to terrorist attacks) to promote JNIM's Jihadist mission.

1.7.4. Terrorist activities

JNIM's *terrorist activities* include *organising and perpetrating terrorist attacks* and *waging wars against apostate regimes*. Through these activities, the group is able to strengthen its global profile and recognition, to seize and govern territory, to compete for non-state supporters by providing the impression that it is advancing the jihadist mission or cause, and to showcase its value to potential state sponsors of Terrorism.

For Guitta (2016), JNIM's significant and sustained terrorist activity¹⁰ allows not only to assert its dominance in the regional jihadist landscape but also to send out the message that it has a de facto competitive advantage over other terrorist groups – most notably ISIS – in the region.

Besides spreading terror, terrorist activities also serve other purposes, such as replenishing stocks of military or transport equipment (e.g. by raiding government barracks or armouries). For example, JNIM's June 2017 raid on a Malian military barracks west of Timbuktu not only killed and wounded 20 Malian soldiers, but also allowed to seize a military vehicle and quantities of weapons and ammunition (SITE Intelligence Group, 2017). This, in turn, allows to compensate for the costs generated by the substantial operational security planning (e.g. gathering intelligence, paying off policemen and informants, vetting potential recruits, using encrypted communications, ...) such activities require.

1.8 JNIM's business partners

The goal of this building block is to identify the key partners with which JNIM interacts in the execution of its business model. In other words:

On whom does JNIM rely to create and deliver its value propositions?

1.8.1. Organized crime groups

JNIM relies on *organized crime groups* for business activities like KFRE and trafficking.

¹⁰ Since the formation of AQIM in 2007, for example, it has carried out over 600 attacks in Algeria alone (CEP, no date a)

In the context of KFRE, organized crime groups are known to have kidnapped people only to resell the hostages to JNIM (Alda and Sala, 2014). As mentioned earlier, organized crime groups are also involved in the facilitation of ransom payments and hostage exchanges.

In the Sahel, terrorism and organized crime has become so intermingled that experts talk about the “Terrorism-Crime Nexus”. For Alda and Sala (2014), it demonstrates that there is a symbiotic relationship between these groups, as evidenced by the many similarities these groups share. In fact, both groups operate best in environments characterized by weak or no government presence. Both also seek out their recruits by drawing on the same demographic target population, i.e. young, jobless and dissatisfied men (Alda and Sala, 2014). And while these similarities can sometimes make them rivals competing for the same or similar key resources, there is also ample space for win-win collaborations.

The fact that criminals sometimes kidnap hostages while JNIM negotiates their ransoms illustrates such mutually beneficial collaboration between criminals and terrorists. For the criminals, since it is the terrorists who will go public to claim the ransoms, it allows to make good money while remaining hidden under the radars of law enforcement. For JNIM, on the other hand, it allows to achieve significant publicity for little effort, which in turn serves to promote its Jihadist mission, and, incidentally, also to make some money at the same time.

Hence, as a result of this “Gangster Jihadism”, the actions of criminals and terrorists are at times becoming so blurred that it becomes difficult to distinguish one from the other. For JNIM, of course, if its sometimes spectacular criminal fundraising actions - like the *In Aménas* incident in Algeria¹¹ - can be disguised as terrorist attacks, they kill two birds with one stone: On the one hand it generates criminal revenue while on the other the appearance of attack again strengthens its Jihadist mission, thus allowing to increase revenues from traditional sources of terrorism financing.

1.8.2. Corrupt government officials

JNIM uses bribes to “buy” the services of officials from government, legal and police, thereby making them de facto partners of its business model. This is useful for multiple reasons.

First, it facilitates business activities because it allows to convince corrupt government officials to participate in the business rather than fighting it. High-level public officials in Mali and other West African nations have for example repeatedly been accused of accepting large cash payments in exchange for ensuring the safe passage, storage and distribution of cocaine shipments across their countries (Diálogo, 2010; Hirsch, 2013). Second, bribes are also useful in the context of terrorist activities, for example to obtain information on army movements or

¹¹ The In Aménas incident, in which 37 hostages died, was immediately denounced by the international community as a terrorist “act of vengeance” against the international intervention in Mali. However, the timing of the operation following so closely on the international intervention in Mali, suggests that it had been planned well in advance of this intervention and should rather be seen as another important example of KFRE (Alda and Sala, 2014).

police operations. Third, since corrupt government officials are usually more busy making money than doing their jobs, they leave some leeway for JNIM to step in and impose its own governance activities. Finally, corrupt governments are also helpful in terms of PR activities because they give credence to JNIM's message that it provides a "pious and honest" alternative to the "corrupt and selfish" government (Boas, 2014).

The weak economic conditions of Sahelian states make it difficult to effectively tackle corruption. In an anonymous interview, a young Malian native from Timbuktu explained that he was paid 2.000 US dollars per trip for transporting cocaine packages across the Sahara (Hirsch, 2013). In contrast, a policeman in Mali or Nigeria earns less than 200 US dollars a month (Baldauf, 2010).

Groups like JNIM exacerbate this situation as they understand that it is in their interest to keep governments weak and corrupt. On the one hand, they exploit the (financial) weakness of these governments in order to acquire influence through bribes. On the other hand, they also use bribes to undermine these governments' authority and credibility, which helps to perpetuate the weakness, corruptibility, and governance failures of these governments.

1.8.3. Local tribes

JNIM works with *local tribes* to conduct trafficking facilitation, to govern territory and to carry out terrorist activities. Finally, through these alliances, JNIM is also able to access resources like knowledge and safe havens and to woo local recruits.

In order to build these partnerships, JNIM has pursued deliberate efforts to embed itself in local contexts in Northern Mali and elsewhere in the Sahel (Humud *et al.*, 2014; Grobbelaar and Solomon, 2015). One particularly effective tool of social integration exploited by JNIM was to marry its commanders to daughters of local tribe leaders (Grobbelaar and Solomon, 2015; Lebovich, 2017a). To cite but one example, the marriage of JNIM commander Mokhtar Belmokhtar with the daughter of a chief of the Arab Barabicha tribe in Northern Mali allowed to consolidate growing military alliances with nomadic tribes in the region and to gain access to local smuggling routes run by these tribes.

JNIM's strategy of integrating into local socio-political dynamics, rather than disrupting them, is reflected in its way of doing business with drug traffickers. In fact, instead of trafficking the drugs themselves, JNIM simply asks established traffickers to pay a protection tax for using its routes (Alda and Sala, 2014). JNIM's partnerships with local tribes also influence its governance activities. During their occupation of Mali, for example, the different factions that now compose JNIM have been allocated to different areas based on the strengths of their respective local connections (Lebovich, 2017a).

In a context like Northern Mali, where most residents struggle with poverty on a daily basis, monetary aspects also play a role in explaining JNIM's successful local integration. According to Boas (2014), money has enabled JNIM to provide public goods and services to local

communities. JNIM's strategy of penetration into local communities thus combines military, political, religious, economic and humanitarian means, with the latter component clearly facilitated by the money that JNIM leaders have at their disposal thanks to their lucrative business activities.

For Lebovich (2017), the fact that JNIM has been able to develop a deep anchorage in local politics, economies, and social systems reflects one of its key competitive advantages in the region.

1.8.4. AQ's global network

By being an official AQ affiliate, JNIM joins the global AQ network, which is composed of AQ core at its centre and regional interconnected affiliates at its periphery. Thereby, JNIM enjoys facilitated access to shared resources such as global financial facilitation networks, human resources, knowledge (including from trainers and advisors sent by AQ core) as well as financial and logistical support (CEP, no date f).

Some analysts argue that accession to the AQ group also provides more immaterial benefits like credibility and prestige. Referring to AQIM's official affiliation to AQ in 2007, Kennedy-Boudali from the RAND Corporation (2009, p.2) argues that it *"has given AQIM greater legitimacy among jihadists, provided increased access to media outlets, and possibly introduced the group to new sources of private funding and other resources"*. In other words, the affiliation to AQ core raises JNIM's profile and prestige (Laub and Masters, 2015), which in turn provides credibility to its Jihadist mission and ideology.

1.9 JNIM's cost structure

The goal of this building block is to identify the costs that JNIM incurs in generating its revenues. In other words:

What type of cost structure results from JNIM's business model?

While generating revenues on the one hand, JNIM's business model generates costs on the other. In fact, terrorist groups use the revenues collected to recruit new members, to fund the maintenance of training camps, for the procurement of weapons and communications tools, for organising and executing terrorist attacks,... (Grobelaar and Solomon, 2015).

Cost items include *employee benefits* (e.g. salaries of fighters, pensions, endowments for widows, family care, etc.), *equipment* (e.g. weapons, ammunition, transport, communication, media,...), *cost of sales* (price of externally acquired hostages, commissions of KFRE intermediaries, prices of goods and persons to be trafficked,...), *infrastructure* (safe havens, housing, training camps, electricity, water, ...), *cost of governance* (providing public goods and services), *financial costs* (network fees, financial intermediaries, ...), *opsec* (intelligence, bribes, spies, vetting personnel, encrypted communications,...), *costs of corruption* (bribes) and *miscellaneous* (e.g. fuel).

These cost items can on the one hand be divided into *operating* and *admin costs*:

- Operating costs: *employee benefits, equipment, cost of sales, opsec, bribes, miscellaneous*
- Admin costs: *infrastructure, costs of governance, financial costs*

On the other hand, these same cost items can also be divided according to whether they are *fixed* (i.e. they do not vary with the number of terrorist or business activities undertaken) or *variable* (i.e. they vary with the number of terrorist or business activities undertaken):

- Variable costs: *equipment (e.g. ammunitions), cost of sales, costs of governance, opsec, bribes, miscellaneous*
- Fixed costs: *employee benefits, equipment (e.g. weapons, transport equipment, communication), infrastructure, financial costs*

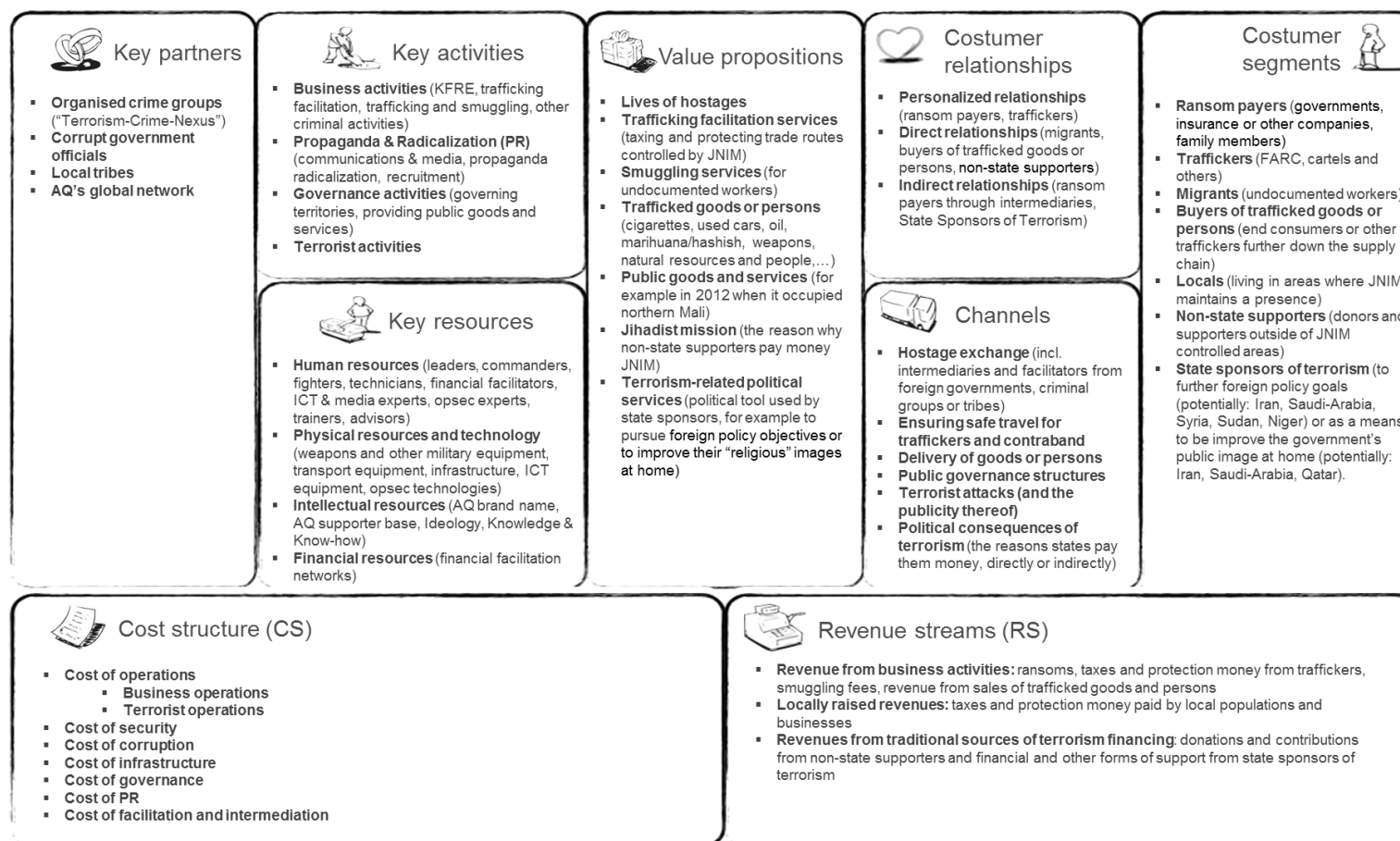
By breaking down these cost items according to their function (i.e. the purpose they serve) the following cost structure can be derived:

- i. Cost of operations
 - o Business operations
 - o Terrorist operations
- ii. Cost of security
- iii. Cost of corruption
- iv. Cost of infrastructure
- v. Cost of governance
- vi. Cost of PR
- vii. Cost of facilitation and intermediation

Findings

I RE-CONSTRUCTING JNIM'S BUSINESS MODEL CANVAS

JNIM's reconstructed Business Model Canvas summarizes the results of this analysis:



II ASSESSING STRENGTHS AND WEAKNESSES OF JNIM'S CURRENT FINANCIAL STRATEGY IN MALI

This section discusses strengths and weaknesses of JNIM's financial strategy based on its revenue streams and cost structure.

Given that – to remain operational in the long term – an organisation's revenues must exceed its costs, the ultimate goal of every long-term financial strategy is necessarily to keep revenues up and costs down. This also applies to JNIM's financial strategy. Alternately, sustained action that reduces JNIM's revenues and/or increases its costs will suffocate the financial viability of its business model over time.

The business model canvas has revealed that JNIM's revenue streams come from three sources:

1. Revenue from business activities: ransoms, taxes from traffickers, smuggling fees, and revenue from sales;
2. Locally raised revenues: taxes paid by locals;
3. Revenues from "traditional" terrorism-financing: donations from non-state supporters, sponsoring from state sponsors and, possibly, support from other AQ affiliates (including AQ core).

Interestingly, while the first revenue stream is driven by business activities, the third one is driven by terrorist activities. This means that, to increase revenues generated through this third stream, JNIM will do so by intensifying its terrorist activities.¹² Moreover, as will be shown below, JNIM is able to increase the number of its attacks at little additional cost.

The business model canvas has also allowed to assess the costs that were required to generate these revenues:

1. Costs of business operations: mainly salaries, equipment, transport, and intermediation;
2. Costs of governance;
3. Costs of terrorist operations, PR and financial facilitation: mainly salaries, equipment, transport, opsec, communication and media, financial network.
4. Overhead costs: infrastructure, housing, training camps, electricity, water, ... These costs are not allocated to a specific revenue stream.

¹² This phenomenon has already been observed in practice in cases where increased competition between terrorist groups has resulted in increased numbers of attacks as these groups compete for resources, recruits and funding (Bloom, 2006; Humud *et al.*, 2014).

As will be shown below, JNIM's cost structure allows to exploit both *economies of scope* and *economies of scale*.

In fact, JNIM's business model uses the same or similar resources to conduct multiple revenue-generating activities. For example, from initially only providing trafficking facilitation, it started to use its knowledge of the trafficking routes to gradually expand into migrant smuggling. JNIM thus benefits from *economies of scope*, i.e. it can expand the scope of its revenue generating activities at little incremental cost.

A closer look at JNIM's cost structure suggests it is also able to exploit economies of scale. For example, many of the costly resources that intervene in the execution of its terrorist activities (like *fighter's salaries, weapons, communication equipment, transport equipment*, etc.) are *fixed costs*, meaning that these costs do not vary when the number of terrorist attacks increases (except for minor elements like ammunition or fuel). JNIM thus benefits from economies of scale, i.e. it can increase the number of terrorist attacks at little or no additional cost.

The fact that JNIM benefits from economies of scope and scale are two strengths of its financial strategy. In fact, they provide opportunities for JNIM to raise revenues while keeping costs low.

Finally, by comparing each of JNIM's revenue streams against the costs¹³ incurred to generate them, the "profitability" level of each stream can be assessed:

	Revenue stream	Corresponding cost items	"Profitability"
<i>Stream 1</i>	Business activities: ransom payments, taxes from trafficking facilitation, smuggling fees, sales;	Costs of business operations: mainly salaries, equipment, transport, and intermediation;	<i>High</i>
<i>Stream 2</i>	Locally-raised: local taxes (including protection money)	Costs of governance	<i>Negligible</i>
<i>Stream 3</i>	"Traditional" terrorism financing: donations, sponsoring and financing from the global AQ network.	Costs of terrorist operations, PR and financial facilitation: salaries, equipment, transport, opsec, communication, media, financial network	<i>Mitigated</i>

The profitability of *Stream 1* is considered high. In fact, Alda and Sala (2014) explain that U.S. and other nation's successes in combatting "traditional" terrorism financing have led Foreign Terrorist Organisations (FTOs) to increasingly turn towards crime in order to fund their operations. JNIM's approach in particular is sometimes referred to as "gangster jihadism" (Center for Security Studies (CSS), 2013) because of its wide range of business/criminal

¹³ In addition to the costs listed in the table, JNIM also has "overhead" costs which cannot be allocated to a specific revenue stream: mainly infrastructure (housing, training camps, electricity, water, ...).

activities which, it seems, have proven to be significantly more lucrative than its traditional sources of terrorism-financing. Gacom (2016) confirms that JNIM is “self-sufficient” and has the ability to finance its various terrorist activities through its different “modes of businesses”.

Alternately, this also suggests that JNIM’s revenues from traditional terrorism-financing have become compromised as a result of global CT financing efforts. And even though JNIM is believed to still receive some funding from non-state supporters, some of whom are located in the West, the significant costs associated with generating these revenues mean that *Stream 3* is, at least, mitigated.

Lastly, the profitability of *Stream 2* is also considered negligible from a financial point of view, especially since the French-led invasion of 2013 retook most of the territory from which JNIM could extract these revenues in Mali. And even if JNIM allegedly still continues to be engaged in limited local governance activities in remote areas of Mali (Lebovich, 2017a), it can reasonably be assumed that any resulting tax revenue will be offset by the significant costs of governance associated with that type of activity (Burke, 2015).

Hence, this shows that JNIM’s business activities are at the heart of its financial strategy. **The fact that JNIM is able to sustain itself financially through its own business operations is a key strength of its financial strategy.** In fact, JNIM’s financial self-sufficiency makes it difficult for Western governments to develop and implement CT policies that allow to effectively weaken JNIM’s funding streams. Conventional tools to counter terrorism-financing, like the *global UN al-Qaeda sanctions regime* (UN Security Council, 2017) for example, disrupt mainly the “traditional” means of terrorism financing, and have therefore only a minor impact on JNIM’s business model.

The business model analysis has shown that two activities are responsible for the bulk of the revenue generated by *Stream 1*: KFRE and trafficking facilitation. To conduct these two activities JNIM essentially needs two resources: *fighters* and *weapons*. In fact, as explained in the analysis, JNIM’s ability to claim a “tax on trafficking” depends on its “quasi-monopoly on violence” in its areas of influence. This quasi-monopoly can only be upheld if JNIM has substantially more fighters and weapons than any other contender in the same area. Armed fighters are also needed for KFRE operations, either to kidnap hostages or to keep them captive, or both.

This shows that JNIM’s entire financial strategy rests on only two revenue generating activities which both depend on the same key resources.

The key weakness of JNIM’s financial strategy is therefore that its viability is contingent on only two key resources. If western governments are able to deploy CT policies that raise the costs of obtaining one of these resources, this could significantly compromise JNIM’s current financial strategy.

Conclusion

This thesis has analysed JNIM's business model in Mali by reconstructing its Business Model Canvas. This, in turn, has allowed to visualise JNIM's revenue streams and cost structure and to assess key strengths and weaknesses of its financial strategy (i.e. its ability to keep "revenues up" and "costs down").

JNIM's key strength is its financial self-sufficiency. In fact, this financial self-sufficiency makes it difficult for Western governments to effectively weaken JNIM's funding streams. While UN-led measures to combat terrorism financing have gone a long way in tackling JNIM's revenues from "traditional" sources of terrorism financing they have so far been largely unsuccessful at undermining JNIM's growing revenues from business activities.

However, comparing each of JNIM's revenue streams against the costs incurred to generate them shows that only one of these three streams (i.e. revenue from business operations) generates revenues in excess of costs. Further unpacking this revenue stream reveals that it all comes down to only two resources: *fighters* and *weapons*. Therefore, policies that are able to raise the costs of these resources for JNIM will increasingly disrupt its business model.

As Stratfor (2017) reports, large quantities of weapons are still available for sale in Libya and will therefore continue to fuel JNIM's operational capabilities in the near future. It is also unrealistic to assume that JNIM might run out of weapons for as long as it has fighters that can replenish stocks by raiding military barracks or armouries, or by conducting weapons trafficking operations.

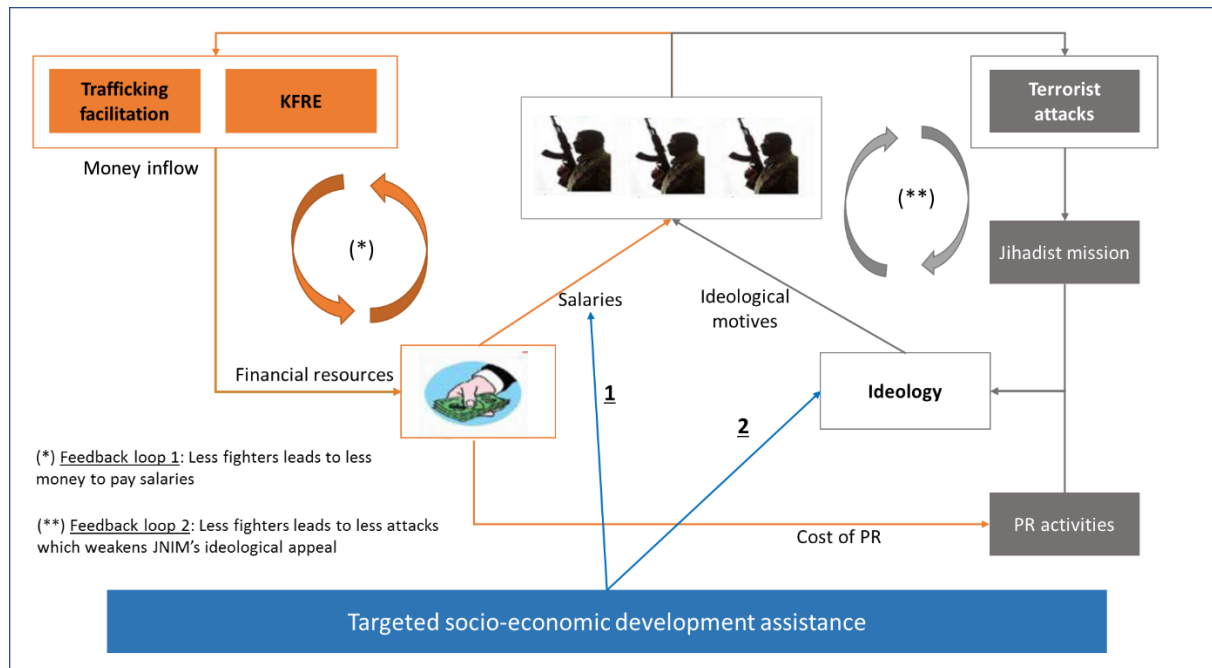
Recruits are driven to JNIM for financial incentives, for ideological motives, or for a mix of both. Therefore, policy interventions should focus on making it more costly for JNIM to recruit and retain fighters and on undermining the appeal of its *Jihadist mission & ideology*. This would allow to compromise JNIM's recruitment capabilities, to reduce its numbers of fighters and, ultimately, to reduce the revenue it can generate through them.

Targeted socio-economic development assistance designed to bring *economic* (intervention point 1 in figure 5) and *social* (intervention point 2 in figure 5) development to neglected areas in Northern Mali might produce these results.

First, economic development assistance will raise standards of living by stimulating economic growth, thereby also increasing overall salary levels in the region. If overall salary levels rise, the salaries that JNIM must offer to remain an "attractive employer" rise as well. Moreover, with economic growth come economic alternatives for disillusioned youth, which become therefore less receptive to JNIM's propaganda & radicalisation. Second, investing in social assistance, integration and education will further reduce the appeal of JNIM's ideology in these areas, which will consequently increase JNIM's costs of *Propaganda & Radicalization (PR)*.

If standards of living increase, JNIM's attractiveness as a potential employer decreases. Hence, fighters start to leave or no longer join. This reduces JNIM's ability to generate revenues through KFRE and trafficking facilitation, which further reduces JNIM's ability to pay comparatively high salaries (see Figure 5, feedback loop 1). More departures also mean less fighters to carry out attacks, which reduces the appeal of JNIM's ideology, thereby further restricting JNIM's ability to recruit and retain fighters (see Figure 5, feedback loop 2).

Figure 5: Disrupting JNIM's business model through targeted socio-economic development assistance



This thesis concludes by opening the door to further research on the cost side of terrorism business models as this might allow to identify new ways to raise terrorists' costs of doing business.

Annexes

ANNEX 1: LIST OF ABBREVIATIONS

AAD	Ansar al-Dine
AQ	al-Qaeda
AQAP	al-Qaeda in the Arabian Peninsula
AQIM	al-Qaeda in the Islamic Maghreb
AQIS	al-Qaeda in the Indian Subcontinent
CT	Counter-Terrorism
IS	Islamic State
JNIM	Jama'at Nusrat ul-Islam wal-Muslimeen - Group for the Support of Islam and Muslims
KFRE	Kidnapping for ransom and extortion
FTO	Foreign Terrorist Organisation
MNLA	National Movement for the Liberation of Azawad
MUJAO	Movement for Unity and Jihad
opsec	operational security
PR	Propaganda & Radicalisation
UN	United Nations

ANNEX 2: BACKGROUND INFORMATION ON JNIM'S COMPOSING FACTIONS¹⁴

Faction	AQIM	Al-Mourabitoun (AMB)	Ansar al-Dine (AAD)	Macina Liberation Front (MLF)
Short description	<p>AQIM is an FTO whose origins date back to the Algerian Civil War. AQIM, originally known as the <i>Salafist Group for Preaching and Combat (GSPC)</i>, split from the <i>Armed Islamic Group (GIA)</i>, the main Islamist group fighting in the Algerian Civil War, in 1998. In 2006, following the GSPC leader's (<i>Abdelmalek Droukdel</i>) oath of allegiance to Osama bin Laden, the GSPC became a formal affiliate of AQ and changed its name to <i>Al Qaeda in the Islamic Maghreb (AQIM)</i>.</p> <p>In the months that followed its rebranding, AQIM carried out a series of deadly attacks in Northern Algeria. When in 2008, the Algerian authorities were able to progressively restrict AQIM to isolated and mountainous areas east of Algiers, AQIM expanded southwards and redirect its attention towards the greater Sahel region.</p> <p>The group is famous for kidnapping westerners for ransom in North Africa and is an active participant in the drug, arms and human trafficking trade in the region.</p>	<p>Initially an offshoot of AQIM, <i>al-Mourabitoun</i> is the result of a 2013 merger between Belmokhtar's "Those Who Sign in Blood Brigade" and the Mali-based Movement for Unity and Jihad in West Africa (MUJAO).</p> <p>AQIM's initial focus on Algeria led Belmokhtar and his Brigade to break away from AQIM end of 2011 as he wanted to spread jihad beyond North African deserts and establish a foothold in Sub-Saharan West Africa. In 2015, al-Mourabitoun announced it was re-joining AQIM.</p>	<p>Ansar al-Dine is an FTO created in late 2011 by Malian Tuareg fighter Iyad Ag Ghali, a cousin of AQIM senior leader Hamada Ag Hama. Largely homegrown, the group is comprised of Tuaregs and northern Malian Berber Arabs. Many previously fought alongside deceased Libyan dictator Muammar Gaddafi.</p>	<p>The Macina Liberation front was formed in January 2015 as an ethnic Fulani front for Ansar Dine to co-ordinate actions and operations in central and southern Mali.</p>
Leader	<i>Abdelmalek Droukdel</i> , a veteran of the Algerian civil war who rose through the ranks of AQIM's predecessor groups GIA and GSPC, becoming emir in 2004.	<i>Mokhtar Belmokhtar</i> , one of the best known warlords of the Sahara, nicknamed "Mr Marlboro" for his extensive cigarette-smuggling.	<i>Iyad ag Ghali</i> , one of the most prominent leaders of the Tuareg rebellion in the 1990s	<i>Amadou Kouffa</i> , a loyal ally of Iyad Ag Ghaly

¹⁴ Sources used to compile the table: *Stanford University* (Stanford University, no date), *U.S. Department of State* (2017), *Financial Action Task Force (FATF)* (2016), *Countering Extremism Project* (CEP, no date c), *Grobelaar and Solomon* (2015), and *Guitta* (2016),

<i>Ideology and objectives</i>	For AQIM, former colonial power France (and to a lesser extent Spain) is the “far enemy”, while states of the Maghreb and Sahel are AQIM’s “near enemy”. AQIM remains largely a regionally-focused terrorist group and has aspirations of overthrowing “apostate” African regimes and creating an Islamic state across North Africa. It has also adopted anti-Western rhetoric and ideology.	Al-Murabitoun aims to establish Shariah law in North Africa, as well as unite Muslims and Islamic movements against secular influences and attack westerners and western institutions throughout North Africa.	AAD works closely with AQIM in their joint goal of implementing sharia.	MLF persecutes anyone who does not follow their strict interpretation of Islamic law.
<i>Terrorist activities and tactics</i>	Primarily focused on western targets within its areas of operation. Attacks on high-profile national and international targets including government buildings, UN buildings, hotels, embassies, etc, within its areas of operation. Tactics have included hostage taking, guerilla-style attacks, small arms, mortars, rockets, IED attacks bombings, gunmen and rocket-propelled grenades. Reported to possess SA-7 surface-to-air missiles, armour piercing machine guns, and NATO issued F2000 rifles, AQIM is considered one the best armed AQ factions in the world.	Main targets include western civilian interests in North Africa, the French and Malian militaries and anyone who aided the French military in its invasion of northern Mali, including the Nigerien and Algerian governments and militaries. Spectacular attacks on high profile targets involved suicide bombings, gunmen, and large scale hostage, indiscriminately targeting both soldiers and civilians.	Fighting against the government in Mali, killing and kidnapping numerous Malian soldiers, but also UN and civilian targets. Tactics include a suicide and rocket attack, hostage taking,	threatens to kill anyone who collaborates with the U.N., French forces or the Mali government. Has conducted attacks on U.N. World Heritage sites and U.N. barracks.
<i>Areas of operation</i>	Southern and Eastern Algeria (including isolated parts of the Kabylie region), Burkina Faso, Cote D'Ivoire, Libya, northern Mali, Niger, and Tunisia.	Al-Mourabitoun is based in Mali. Areas of operation include Mali, but also Algeria, Burkina Faso, Libya, and Niger.	Mali, with threats to target Mauritania and the Ivory Coast.	Central and southern Mali
<i>Estimated membership</i>	Several hundred fighters in Algeria and the Sahel, including remote regions of northern Mali and southwest Libya.	Unknown	Unknown	Unknown
<i>Funding strategy</i>	Kidnapping-for-ransom, smuggling, and other criminal activities such as drug, arms and human trafficking. AQIM also fundraises globally, and receives financial and logistical assistance from supporters in Western Europe.	Known for its “Gangster-Jihadism” involving extensive kidnapping-for-ransom, smuggling, regional arms and drug trafficking. AMB also receives support from other terrorist organizations in the region.	Has received funding from AQIM, from foreign donors and through smuggling.	Unknown

ANNEX 3: BUSINESS MODEL CANVAS AND BUILDING BLOCKS

The role and contents of each of the nine building blocks that compose the business model canvas are reviewed hereunder:¹⁵

1. **Customer segments:** defines the different groups of people or organizations an enterprise aims to reach and serve. A business model may define one or several large or small customer segments. Based on that, a business model can be carefully designed around a strong understanding of specific customer needs and problems.
2. **Value propositions:** describes the bundle of products and services that create value for a specific customer segment. It is the reason why customers turn to one company over another. It solves a customer problem or satisfies a customer need.
3. **Channels :** describes how a company communicates with and reaches its customer segments to deliver a value proposition. Communication, distribution, and sales channels comprise a company's interface with customers.
4. **Customer relationships:** describes the types of relationships a company establishes with specific customer segments. In practice, relationships can range from *personal* (direct relationship with the customer) to *automated* (no direct relationship with the customer). Increasingly, organisations are also establishing relationships based on *user communities*.
5. **Revenue streams:** represents the cash a company generates from each Customer Segment. Revenue streams can be generated through several ways (e.g. sale of a good or service; usage fee; renting or leasing; intermediation fees; donations; etc.) and can vary depending on the customer segment. As an **integrated** tool, the Business Model Canvas allows to derive revenue streams relatively easily once *customer segments*, *value proposition*, *channels* and *customer relationships* have been identified.
6. **Key resources:** describes the most important assets required to make a business model work. These resources allow an enterprise to create and offer a value proposition, reach markets, maintain relationships with customer segments, and earn revenues. Different key resources (i.e. human resources, physical resources, intellectual resources, or financial resources) are needed depending on the type of business model.
7. **Key activities:** describes the most important things a company must do to make its business model work. Every business model calls for a number of key activities. These are the most important actions a company must take to operate successfully.
8. **Key partnerships:** describes the network of suppliers and partners that make the business model work. Companies enter into partnerships to optimize their business

¹⁵ Source: Osterwalder and Pigneur, 2010

models, reduce risk, or acquire resources. It should be noted that two organisations can be competitors and partners at the same time.

9. **Cost structure:** describes the most important costs incurred while operating under a particular business model. Creating and delivering value, maintaining Customer Relationships, and generating revenue all incur costs. As an **integrated** tool, the Business Model Canvas allows to determine the cost structure relatively easily once the *key resources*, *key activities*, and *key partnerships* have been defined.

ANNEX 4: ESTIMATED RANSOM PAYMENTS TO JNIM BETWEEN 2008 AND 2014

\$91.5 million has been paid to Al Qaeda in the Islamic Maghreb.

Year	Amount in 2014 Dollars	Paid By	Hostages
2010-13	\$40.4 million	A state-controlled French company	4 French nationals
2010-11	\$17.7 million	A state-controlled French company	1 French national, 1 from Togo and 1 from Madagascar
2009	\$12.4 million	Switzerland	2 Swiss nationals and 1 German
2011-12	\$10.8 million	Could not be determined	1 Italian and 2 Spaniards
2009-10	\$5.9 million	Spain	3 Spaniards
2008	\$3.2 million	Austria	2 Austrians
2008-9	\$1.1 million	Could not be determined	2 Canadians

Source: The New York Times (<https://www.nytimes.com/2014/07/30/world/africa/ransoming-citizens-europe-becomes-al-qaedas-patron.html>)

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