Investigating organised crime - perspectives from within the police:

A case study on business techniques and how can they be applied to analysing OCGs in a police setting

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Abstract

The argument central to this thesis is that business analysis techniques can be transposed from use in a legitimate business situation to a criminal investigative standpoint. In an investigative situation, business analysis techniques can enhance investigation and provide insight into strategy development against organised crime groups (OCGs). Much of this research was conducted while working as a volunteer for City of London Police.

The methodology is multi-faceted and involves seven key strands:

1) Creation of a framework to analyse which key questions posed within current business analysis techniques are translatable to an organised crime context,

2) Creation of initial toolkit based on results of methodology 1.

3) Trial and improvement of initial toolkit by the author on a range of historical cases.

4) A survey distributed to the Regional Organised Crime Unit (ROCU) network to determine strengths and weaknesses of the toolkit and verify the core research concept.

5) In depth interviews conducted with law enforcement and academia for the same purpose as strand 4.

6) Further trial and adaption of the of toolkit on live cases following amendments by myself made after analysis of the results of methodologies 4 and 5.

7) The seventh strand involved detailed feedback from a series of live pilot on cases conducted by specially selected analysts in several law enforcement agencies.

Case study data was obtained from several law enforcement agencies with permission for academic analysis, but not for disclosure into the public domain; therefore, the results of the case study analysis, but not the raw intelligence itself, will be included in this submission. Because of the unique nature of each organised crime investigation, the quality of the intelligence data in each case study differs depending on the level of access granted and the level of intelligence granted to the lead law enforcement agency. To counteract this the thesis' central argument was tested on organised crime groups that were involved in a variety of criminal activities including: fraud, drugs and counterfeiting. Following the conclusion of this methodological approach, the evidence amassed has allowed concrete conclusions to be drawn surrounding the applicability of business analysis techniques to enhance analysis of Organised Crime Groups (OCGs). These conclusions have been used to create a series of questions, which has the potential to make a tangible difference in the way in which investigative strategies are developed.

Contents

Abbreviations and Definitions

APP	Authorised Professional Practice
COLP	City of London Police
CBAM	Criminal Business Analysis Matrix
DEA	Drug Enforcement Administration
FATF	Financial Action Taskforce
IPO	Intellectual Property Office
LBS	Legal Business Structures
LMS	London Masonic Syndicate
MORILE	Management of Risk in Law Enforcement
ML	Money Laundering
NAWG	National Analysts Working Group
NCA	National Crime Agency
NPCC	National Police Chiefs' Council
ONS	Office for National Statistics
OCG	Organised Crime Group
OCGM	Organised Crime Group Mapping
OCN	Organised Crime Network
OCA	Organised Crime Applicability
OCAI	Organised Crime Applicability Index
OCE	Organised Criminal Enterprise
ROCU	Regional Organised Crime Unit
SIO	Senior Investigating Officer
SCP	Situational Crime Prevention
SOC	Serious and Organised Crime
SEROCU	South East Regional Organised Crime Unit
TOCTA	Transnational Organised Crime Threat Assessment
UNODC	United Nations Office on Drugs and Crime
U BATTLE	Utilising Business Analysis Towards Targeted Law Enforcement

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Chapter 1: Introduction

Philosophical contexts

This thesis chronicles an academic journey, it highlights the strength and dexterity of the thread that runs from business analysis to organised crime and demonstrates how, through a detailed multi-methodology approach, key questions from business analysis methodologies can be adapted and used to enhance the approach to organised crime, specifically the formal development of investigative strategies to dismantle organised crime groups. Through substantial and prolonged engagement with law enforcement at every stage of the process, as well as with academic experts in business analysis and policing, the veracity of this previously unexplored link is first unpicked, and then cemented in the following chapters. It is then assessed in first a scholarly, and from that an evidence-based, policing perspective. This work could not have been possible without previous work carried out by both academics and policing in this area, notably, Murray (2016;2017), Lusthaus (2019), Porter (CGMA 2019), McKinsey (2019) and the US Drug Enforcement Administration's Kingpin Strategy (Mondepilo 2019), as Issac Newton (1676) said "we stand on the shoulders of giants".

There are several quotations which are useful in identifying some wider philosophical context to the research. It was Albert Einstein (Quotikon 2021) who said "the more I learn the less I know". While clearly, he wasn't referring directly to organised crime, the premise does relate more widely to the intelligence picture of an organised crime group, as while obviously police have intelligence databases, these often these yield more questions the further an investigation proceeds. Given the illicit and therefore secretive nature of organised crime, it is tempting to channel the spirit of Winston Churchill (Churchill Society 2021), who when asked to predict the actions of the Russians during WW2 described them as "a riddle, wrapped inside a mystery inside an enigma". One of the main challenges in this area is that, partly due to the secretive nature of criminality, despite the large numbers of researchers, several key aspects of how organised crime work are not known.

Research question:

To what extent can standard business analytical techniques be utilised in the investigation of organised crime groups by law enforcement agencies through their application to intelligence data?

PhD aims:

1. To critically evaluate the applicability of established business analysis techniques in the context of the investigation of organised crime through a multi-faceted methodology;
2. Critically assess how employment of those techniques may disrupt and pursue OCGs specifically through enhancing the development of investigative strategies;
3. Critically examine how those techniques that show promise can be developed into a workable toolkit for practitioners; and
4. Critically assess the thesis' contribution to organised crime literature both from a policing and critical criminological perspective

The thesis has three natural phases, the first is the setting out of the theoretical context in which it sits. Ie specifically detailing its influences which in this case are the *organised crime as an enterprise* school of thought- which shows how organised crime operates as a business- as well as the successful utilisation of traditional change management techniques in a legitimate business context and the lack of a formal investigative strategy structure within policing. The second phase is the creation of a toolkit of techniques that can be applied to intelligence on organised crime groups- based on the argument that if organised crime operates as a business and that business analysis techniques can be used to address strengths and weaknesses within a legitimate business context, that adapted versions of those models can be applied to police intelligence on OCGs to enhance the development of investigative strategies against them. The third phrase concludes the research and involves an assessment of the thesis and its place in both a policing and organised crime context as well as an analysis of the testing and validation processes used create the toolkit element of the thesis and how that, and the wider thesis, contributes to the knowledge basis in this area.

The motivation for this research, originality of concept and original contribution to research is simple, to improve policing, specifically to enhance the development of investigative strategies that are devised to counteract how OCGs operate. As is examined later in this thesis, in their current itineration such strategies are informal and do not take into consideration the complexities of modern organised criminality and how closely aligned it is to legitimate business. The extent to which policing and academia have embraced the concept of first how organised crime operates as a business will be examined in detail in the literature review. Essentially it is considered the major emerging concept in both areas, though police officers, given that they see things from an enforcement perspective, are less likely to define it as such at first. It is anticipated that using the premise of business analysis and applying it to criminal rather than legitimate enterprises and of then utilising the results from an investigative standpoint will provide a strong original contribution to research.

The thesis does not attempt to portray business analysis techniques or the idea that organised crime mimics the operation of legitimate businesses as its own, these concepts, while integral to the research, are clearly not of the author's own invention. The original contribution to knowledge comes from the merging of those two areas and the application of the author's own knowledge of policing, organised crime and how it is policed and in delving into this area, realising the dearth of current practice, developing a framework to rectify it and creating a methodological strategy to ensure its rigour. The position of the thesis within that context is important, ie how it fits into current narratives surrounding policing and organised crime. Overall, its position within the world of academia and policing will of course be determined by history, but essentially the thesis brings together evidence on the study of organised crime as a business and then adds to it, bringing a unique perspective on the ability to enhance the way policing deals with organised crime groups and further the academic knowledge base on this area, based on a detailed understanding of both academic and policing principles. This is, in essence, my narrative.

From a theoretical criminology perspective, the thesis leans heavily on the situational crime prevention school of thought (Clarke 1980), ie the insights generated from the questions developed by the research in this thesis can, and this is supported by the evidence, enhance a police officer or analysts' ability to think differently and generate alternative solutions to the problem caused by the OCG. While from a theoretical research perspective I have drawn from Robson (1993) as well as my

own experience in policing and academia in developing methodologies to measure complex intricacies in this landscape.

The research, as any paper does, contributes to a theoretical tapestry, the thesis contributes to the elements of knowledge and policy frameworks within academia and policing. It is a step beyond what is currently being done in policing where there are a small number of researchers, namely from Police Scotland and the UNODC, examining the symmetry of business analysis in a criminal context. To say the research area is currently regarded as a niche sub-genre organised crime research would be accurate, however it is undeniable that that concept itself is currently being explored. In academia, the idea that organised crime operates as a business, while as explained in the literature review, is not by any means universally popular and has been the subject of research since Sellin (1963) in the 1960s. Work by Smith in the 70s (1970) continued to evolve the field as has research by Gottschalk (2009,2010), Catino (2019) and Lusthaus (2019) in the last decade. Each scholar has contributed a piece to the overall aforementioned knowledge tapestry in this emerging area, it is hoped that over time this thesis will be regarded as yet another piece to the ever evolving puzzle that is countering organised crime.

U BATTLE - An introduction

Project U BATTLE (Utilising Business Analysis Towards Targeted Law Enforcement) is the practical result of the development of the theory outlined in this thesis. This thesis will chart the development process of the U BATTLE toolkit as a methodology to prove core hypothesis of this thesis. The aims, concepts, and results of the PhD feed into U BATTLE, and vice versa. The objective is to compile a toolkit comprising of techniques capable of examining each facet of an OCG's environment, modus operandi and structures, with a view to enhancing law enforcement practitioners' ability to disrupt them. It is argued here that, through the prism of academic research conducted in thesis, this has ultimately been successful.

The questions that U BATTLE and this thesis set out to answer are whether analysis of facets of an OCG's internal and external environment [i.e. social, technological, environmental, and cultural factors] aid law enforcement pursuit. Success is difficult to measure. This is primarily because there is no correct or standard way to investigate an organised crime group and therefore, no baseline for which to gauge effectiveness (although most law enforcement agencies have standard performance indicators, such as numbers of arrests, amount of commodities confiscated, etc). As will be discussed later, the common policing evaluation method of Randomised Control Trials is not possible here.

An evaluation of success from a U BATTLE point of view therefore is based on qualitative feedback, comments from interviews and the survey, both of which were overwhelmingly positive. It is also based on testimonials from those who have both seen the toolkit and applied it on live cases through blind feedback. In addition, success (and theoretical accuracy of the core research concept) can be measured though inclusion of the toolkit in professional guidance, such as the Home Office Lead Responsible Officer Guidance (2021). The iterations of U BATTLE were improved partly through the methodologies outlined in the methodology chapter, and partly through debate within the law enforcement and academic communities facilitated through frequent conference presentations.

A full list of presentations is below:

- National Intelligence Conference 2018
- International Conference on Transnational Organised Crime and Terrorism 2019,

- National Internet Intelligence and Investigations Conference 2019
- National Analysts Working Group 2019
- European Political Research Consortium Standing Group on Organised Crime 2019
- Gulf Cooperation Council Forensics Expo
- Strategic SOCEX 2019
- Europol SOCTA Advisory Group 2020
- PSNI Analysts Training day 2020
- Investigator Serious and Organised Crime Conference 2020
- National Economic Crime Conference 2020

This thesis charts the entire research journey, primarily through the prism of academic research informing operational policing practice, but also from a standalone perspective, where even if you remove the U BATTLE element entirely, there remains a valid piece of academic research underpinned and verified by a multi-faceted methodological approach. This thesis will chronicle and assess the validity of the research, from technique selection and research to collecting and collating data, right through to the creation, development and operationalisation of a toolkit and the challenges associated with these activities. It will also provide a reflective analysis on the effectiveness of the project and seek to determine where better decisions could have been made.

Scholarly overview

The premise of this research is based on a growing school of thought, populated by scholars such as Wainwright (2016), Cockayne (2016) Arlaachi (1988) and Glenny (2008). This school of thought states that OCGs operate similarly to, and learn from, legitimate business, with the main difference being that their commodity happens to be illegal. Wainwright (2016) argues that drug cartels have learnt "brand franchising from McDonalds, supply chain management from Walmart and diversification from Coca-Cola", and that when they start to think like big business the only way to understand them is economics." The project will expand on Wainwright's idea and combine this premise to test a suite of business analysis tools to gauge OCGs strengths and weaknesses and examine the suitability of this in the context of organised crime investigation. Research (Levitt and Dubner 2006) has indicated that OCGs are mirroring the structure of legitimate business, with one gang[1] in Chicago simulating a traditional business franchise such as McDonald's. In this case much like the catering giant, a small number of senior members are responsible for the granting of permission to use the name and take a cut of the profits, the gang also kept extensive financial records of drug sales, expenses, and business strategies. This indicates the transferable nature of business models regardless of the licitness of the product.

It's not until we understand the prism through which these groups operate that we can formulate an effective response to them. Wright (2006) argues that UK organised crime has evolved since the days of family orientated gangs such as the Krays' and the Richardsons' who were purely domestically focused and says that globalisation and the boom in the international drugs market

[1] The definitional difference between a gang and an OCG will be explored later in the thesis.

that has taken place since the 1960s means the equivalent of those organisations in the present day, such as the notorious Adams crime family, run their operations like an international business, rather than domestic ones.

In short, internationalisation has made OCGs more sophisticated over the last 40 years, but the structural and organisational similarities to legitimate business means there is potential to utilise business analysis techniques on groups engaging in illicit activities. The research, focused on the pursue element of government organised crime strategy (Home Office 2018), will draw on the application of understanding of legitimate business modelling techniques and target them at groups operating illicit enterprises. While the present law enforcement tools are capable of conducting a similar form of scrutiny, such as market and subject analysis (The former is used to outline the level of activity, trends and understand why a market operates the way it does, while the latter is used to produce a subject profile) and are suitable for building up a general picture; it is anticipated that, through utilising techniques more commonly used in a business situation, police intelligence capabilities can be substantially enhanced. Working on the principle that because organised criminals mimic the operation of sophisticated businesses (the only difference being the product they sell is illegal), this thesis will apply established economic analysis techniques to these groups to enhance policing intelligence surrounding their operation. Specifically, it is hoped the toolkit will aid the processes involved in creating the strategy and tactics which aim to pursue and disrupt organised criminal networks. One of the uses that has been identified is in the placement of covert human sources within OCGs, others include aiding the development of tactical and investigative strategies against these groups.

As previously mentioned, a key tenet of this research is based on the assumption that until we understand the prism through which high end OCGs operate, we cannot formulate an effective response to them. So far, no research of a similar scope has been undertaken. This thesis is the first in looking at organised crime through the lens of business sophistication and it is this principle of treating organised crime like the sophisticated businesses they mimic that is central to the project. A more holistic approach to tackling OCGs is needed, focusing on specific groups exhibiting certain market trends. OCGs are explicitly taking corporations as models for how to do business and emulating them so as to be more effective. This project theorises, and has subsequently proved, that we can therefore use business techniques to impede that aim. Currently, as the literature review indicates, there is a gap in the police toolkit, and it is hoped this research can go some way towards filling it.

This research will test the following research question: **To what extent can standard business analytical techniques be utilised in the investigation of organised crime groups by law enforcement agencies?**

In summary, through a multi-faceted methodology consisting a literature review, law enforcement survey, semi structured interview, case studies and blind feedback, several tasks have been accomplished. The first is an examination of the link between organised crime and how it operates as a business, the second how business analysis techniques designed for use on legitimate enterprises can be adapted and applied to organised crime groups and the third is the development of a series of questions that, following on from the first two points, can be used in a policing context following a rigorous academic process.

Chapter 2: Literature review

In the in the forthcoming chapter, a deep dive research has been conducted, it will assess the current research picture in areas relevant and interlinked to the research. This has revealed that there are significant gaps in the academic research that links the use of business analysis to the development of investigative strategies against organised crime. While there is an emerging area of academic expertise that assesses organised crime acts as business, a mention of a specific correlation between business analysis and improving investigative strategy development could be described as nascent at best and is examined in more detail later in this chapter. The chapter has been split into sections, which deal with the following issues: institutional perceptions of organised crime, how it operates as a business, current problem solving and analytical models in policing in the context of the research, the extent to which law enforcement are currently using similar analytical methods to those outlined in the main body of this research and intelligence related issues to this approach. Finally, the potential for automation to enhance the core concept of this research will be explored and the nature and effectiveness of strategies against organised crime will be examined.

This research deals with several types of sources, broadly these can be split into two categories government/police and academic; each of these are valuable in their own way. Law enforcement reports can often be political and therefore influenced by political concerns, such as a wish not to detail a particular problem without a solution, academia on the other hand can be vulnerable to the opposite issue, with academics enhancing the severity of their claims to bolster their own reputation or that of their institution.

One caveat that needs to be applied to this section, and indeed every literature review that has been conducted, is that, while every effort has been made to examine a wide a range of material as possible, it is entirely possible that research exists in this area that if discovered would subsequently alter the research approach. Through a detailed academic approach, including, but not limited to, a systematic search of key journals such as Trends in Organised Crime, Policing, the Journal of Criminology and Criminal Justice and the Journal of Drug Issues, as well as conversations with numerous experts in both policing and analysis, it is hoped this risk has been reduced to the lowest possible factor. There is also another risk: there must come a point where for reasons of time constraints a decision is made not to assess any more material and move on with the body of the research. Here the risk of missing out on a highly recommended article or report that could alter the research direction must be balanced against the risk of not completing the research on time.

Institutional Perceptions of Organised Crime

The Home Office, in its serious and organised crime strategy (2018:6) gives the clearest public indication yet of the sheer scale of the threat posed by organised crime, stating that in terms of deaths and impact on citizens organised crime is “the most significant national security threat the UK currently faces.” They conservatively estimate (caveating that much of it is hidden so the true cost is likely higher) that it costs the UK £37 billion annually. From the point of professional cynicism, one should be wary of the calculations performed by a government agency and consider them in the context of the current political agenda, this is highlighted by Towers (2018) the only thing official statistics tell you is what the organisation is thinking. Having said that, after a cursory examination of the methodology behind this assessment (Home Office Research report 77:2018), which is essentially taking every source of estimates available to them- police, Ministry of Justice, crime

survey's and ONS- and adding them together while taking into account costs accumulated by prisons, NHS and Border Force, it would appear sound, if rather sweeping, conclusion.

A report from the London School of Economics (LSE 2018) found that Regional Organised Crime Units (ROCUs) on average deal with OCGs with a higher criminality than the NCA. On first glance, given the hierarchical nature of UK policing with the NCA at the top, and the ROCUs below them offering a regional perspective, this conclusion would appear to be flawed. However, a closer look at the report indicates that this could replicate the threat and spread of organised crime across the UK. Furthermore, the fact that the ROCUs are a specialist body within their own right and are capable of running sophisticated operations against high level OCGs without involving the NCA, as well as the vagaries of the Organised Crime Group Mapping scoring system, which will be examined in a later section. As such, it is possible that a cross section of ROCU cases could be higher than a cross section of NCA cases.

The global nature of organised crime is one of the few areas that all sections of academia and policing can take a consistent view on. However, while this research remains UK-centric, the international organised crime situation and the operational symmetries of groups operating globally, cannot be ignored, and deserve a brief mention here. Additionally, the NCA in its Serious and Organised Crime Threat assessment (2018) states that organised crime is increasingly interlinked and, as the seminal UNODC Transnational Organised Crime Threat Assessment (TOCTA) (2010) noted, OCGs are taking advantage of the ease of international global communication, meaning almost all of UK organised crime has an international element. The UNODC say groups in the top-scoring 20% of those mapped are predominantly involved in violence, money laundering, and drugs. Moreover, 79% of OCGs are linked to at least one quasi-legitimate business enterprise. This knowledge is useful in determining which OCGs should be used as case studies and, if possible, which facets of an organised crime group to target through the U BATTLE questions designed as part of this research.

The profits involved in drugs, combined with a huge market, make it no surprise that this crime features prominently in the TOCTA. Money laundering also makes sense as, without a way to funnel criminal funds into the legitimate economy, vast drug profits are all but useless. Violence is also a logical factor as it is the primary method of both enforcing discipline and maintaining and increasing market share. The document also adds further strength to the 'OCG acts as a business' school of thought, assessing that the majority of OCGs have links to legitimate enterprises and that as well as applying to OCGs operating freely, the same concept also relevant to those incarcerated in the prison system, "SOC offenders usually adopt a business-focused approach to their activities both within prison and whilst on licence. They exercise pragmatism in their dealings with authority in order to minimise impact on their enterprises." (UNODC 2010:199).

The phenomena of 'county lines' are worth a mention here. According to the 2018 Home Office Serious and Organised Crime Strategy, the term 'county lines' is used to describe gangs and organised criminal networks involved in exporting illegal drugs into one or more importing areas [within the UK], using dedicated mobile phone lines or other form of "deal line". They are likely to exploit children and vulnerable adults to move [and store] the drugs and money; moreover they will often use coercion, intimidation, violence (including sexual violence), and weapons. The debate on whether 'county lines' is new, or if it is a law enforcement creation designed to get more funding to tackling the problem of drug trafficking, is an intriguing one hinted at by Coomber and Moyle (2017), but again one of barely peripheral relevance as regardless of the accuracy of the definition, groups engaged in county lines are clearly operating from a business standpoint therefore the concepts central to this thesis would be relevant to them. Cryptocurrencies such as bitcoin are also an

important innovation in how organised crime operates, as they speak to a merging of legitimate and illegitimate revenue streams. Cryptocurrencies (as with cash), because of their anonymous nature, can be used to purchase illegal items without a paper trail or, in the case of bitcoin, guns drugs and other illicit commodities from the dark web. However, they are also used for a number of legitimate purposes and were created for altruistic reasons (to increase citizens privacy), rather than deviant reasons. This application of a tool for nefarious purposes as opposed to its intended legitimate purposes, highlights how organised crime mimics some elements of legitimate businesses but adapts them for its own ends. This further strengthens the argument that adapted versions of business analysis techniques can be used to tackle them.

Research by the Police Foundation and Perpetuity Research (2017:8) on the impact of organised crime in local communities, argues that organised crime is constantly changing and that while traditional activities such as drug dealing and serious acquisitive crime feature prominently, they are now commonly "supplemented with 'new' or 'emerging' crimes". They suggest a new "more proactive, problem-oriented approach and a shift towards identifying and tackling the hidden dimension of organised crime. This problem-based approach defined by RAND (2021:NP) as "a means diagnosing and solving problems that are increasing crime risks", to organised crime is logical. it also dovetails in well with the main tract of this paper: enabling the reverse engineering of OCG business requirements to determine vulnerability. For example, a problem-solving scenario would argue that such an approach is not mutually exclusive to a pursue based policy and that essentially, as an investigative strategy, is a plan to counteract the multiple intractable problems caused by an OCG, therefore a problem-solving approach linked with proactive investigations would prove effective.

Due to its religious and historical make up, organised crime in Northern Ireland has a unique paramilitary element. Paramilitary OCGs are involved in a much wider range of criminality than traditional OCGs; the crimes they commit can be broadly split into two camps: "honourable crimes" and "dishonourable crimes". "Honourable crimes" are those which are acceptable to their members, such as theft and arms smuggling. "Dishonourable crimes" are those which the organisations still commit and have tacit approval for, but if caught will result in them being disowned by the organisation as these levels of crime are deemed unacceptable by the community (PSNI interview 2018)**.** An example of a "dishonourable crime" is human trafficking. which the organisations still commit and have tacit approval for, but if caught will result in them being disowned by the organisation as these levels of crime are deemed unacceptable by the community (PSNI interview 2018)**.** After discussions with senior officers within the paramilitary crime taskforce, what that means in terms of this research is that it is the core concept is equally applicable to both paramilitary and traditional OCGs. Additionally, as highlighted in the results section, analysts in the Belfast Intelligence Hub have tested and reviewed any developed product on a live (non-paramilitary) case determining it would be highly useful in an operational and investigative sense.

How organised crime operates as a business- the theory of entrepreneurialism

It is the ability to take certain elements of legitimate enterprise and disregard others-highlighted in the previous sub section, that is highlighted by Hobbs (1998:415) in his widely cited *Going Down the Glocal* article argues that contemporary serious crime is typified by their flexible nature and increasingly unpredictable temperament.

> They are operating within multiple, interwoven networks of legitimate and illegitimate opportunity constituting both personal criminal networks and specific activity network.

> Within the drug market in particular, trade is carried out between networks of these small flexible firms, for disorganised crime mirrors disorganised capitalism.

One case study he uses involves two criminals named Bill and Ben, who act in a way that typifies a freelancer or consultant in the legitimate world (1998:413).

> There are no key players in this network, no ring leaders, bosses or godfathers. It is a co-operative, a series of temporary social arrangements that enables a constantly changing group of actors to make money from predominantly criminal opportunities.

Johnson (2013:147) also highlights how 'the cartel', the name he uses for the UK's largest and most successful drug trafficking organisation, runs its multi-million pound enterprise in a similar manner to a legitimate business.

> The cartel's structure was sophisticated, a rolling rigid hierarchy that resembled a group of trading partners. In some ways the cartel looked like an emerging international business with a basic command structure, economists call this model an international area network Over the next decade the shape of the organisation would change again, solidifying into a pattern normally found in global corporations
>
> Scores of cartel managers and hundreds of employees were identified meshed together in an extremely complex network of revenue flows and capital assets. Economists would describe the cartel as having matured into something akin to a 'global matrix structure' a shape that made it possible to optimise the strength of participating units, distributing the pressure of business more evenly, avoiding duplications.

This summary of the mechanics of OCG operation at the highest level is particularly insightful given its source (interviews with both high-level criminals and police officers) this first-hand evidence gives veracity to the central plank of this thesis.

Catino (2019:261) looks at specific type of organised crime (mafias) examining how they are structured in an organisational context and how they tackle some of the challenges that occur traditional legitimate enterprises, such as recruitment, trust and expansion, which he describes as 'Mafia organisational dilemmas' this assessment, which draws huge parallels between criminal and business operation, enhances the main thrust of this thesis.

> To understand the logic of organisational action it is necessary to understand the calculations carry out to identify which choices to pursue and which to avoid. An increase in size favours centralised decision making and makes democracy difficult.
>
> More power equals more leverage, larger organisations have more career opportunities which aids retention, large scale companies can engage in large scale projects, you don't see many mom and pop international drug trafficking rings. Small operations more flexible and dynamic, less bureaucracy, quicker decision making, higher levels of personal investment.

He also quotes Weinstein (2007:128) arguing most efficient organisational form may be a small close knit mafia style family, which can run local operations and protect its members, though clan style mafias also benefit from international links- which Catino calls clan based federations with other clans which allow them to widen their criminal circle while still dealing with trusted associates. Drawing on research by Bouchcard and Morselli (2014) Catino notes that while large international organisations exist, small is more common. This links in with RAND (1989) and Desroches (2007) assessment of high-level drug traffickers, which argue that the area is populated with groups who

deal which certain trusted individuals, rather than the cartels and mafias of Hollywood. Catino argues eloquently that there are several key differences between how mafias and business operate, firstly (264) that organised crime operates 'operate without and against the state' which necessitates a certain caution and that as a result, unlike legitimate business, communication is a risk- Operation Venetic (2020) is a perfect example of this, where law enforcement hacked into devices that criminals thought were impenetrable.

He also notes (2019:287) that violence, and the threat of it, is used as a key tool to balance power between rival gangs and to counteract the lack of trust that exists between criminal factions- something that is not available to legitimate businesses. Furthermore he concludes (2019:289) that "The reduction of violence is an excellent strategy for doing business", this makes logical sense as violence attracts the attention of law enforcement which has the potential to reduce profitability. In addition, Catino (2019:308) suggests mafias go through similar quandary's when expanding as legitimate family run businesses, highlighting (2019:294) the kinship vs skills and trust vs expansion dilemma. In the former case this means to you entrust an important task to a family member or an outsider with an enhanced skillset, while in the latter case, should you expand your business which would mean dealing with people outside a trusted circle, or pass up on opportunities to ensure your business remains free from outside input.

> If the dimension of economic accumulation prevails over the ideals of brotherhood, the organisational authority loses legitimacy. When in a mafia, the rational character of economic action becomes dominant the practices and rituals that foster integration lose their value and the magical aspect disappears.

Here he is saying that in the case of mafias, they are held together by more than profit and that if greed prevails they become like any other gang. It would be fascinating to see the results if this research was reproduced outside the mafia context and focussed on other traditional OCGs.

The Mafia Mystique (Smith 1970), although now considerably dated, is still a highly relevant text and highlights that the entrepreneurialism theory of organised crime, which many assumed had its roots in the work of Sellin (1963) has in fact been around for over a century. Smith, quotes Thrasher (1970:75) whose 1921 book *The Gang* looked at more than 1,300 Juvenile gangs in Chicago, showing that the concept of organised crime mimicking legitimate businesses.

> At the top are the professional criminals, who might be called to use a business term, criminal enterprisers. They provide the organising energy and business brains of crime.. who engineer the larger criminal enterprises…. Capone and his more organised racketeer friends were more businessman than outlaw.

Quoting the organised crime task force report which first outlined the existence of the Mafia in the US, Smith (1970:122) notes "the core of organised crime in the US consists of 24 groups operating as criminal cartels across the nation. Their membership is exclusively men of Italian descent, they are frequently in contact with each other and their smooth functioning is insured by a national body of overseers". This system of communication and cooperation and the use of the business term cartel, indicates the organisational similarities between enterprises on both sides of the law.

Smith (1970:334) also succinctly summarises illicit enterprise as "the extension of legitimate market activities into areas normally proscribed… for the pursuit of profit and in response to latent illicit demand" As organised crime groups are often found to interact also in legal markets, it is useful to look at organised crime through the lenses of organisational studies with reference to legal markets. Sergi (2016A) does that, she quotes the key principles (2016A:151) according to Baum and

Amburgey 2002 1. Organisations evolve, 2. The more environments change and present uncertainties, the more organisations struggle to devise and execute changes. 3. Organisations' births and deaths' happen in the market in different ways according to contextual social and economic circumstances. She argues that, in the context of organised crime it is suitable to test these principles on both legal and illegal organisations and that it is particularly important when examining how a criminal organisation interacts with its environment (2016A:169). "It is indeed very useful to understand how logics and rationales normally associated with legitimate organisations can still apply to illegitimate ones" She goes on to note (2016A:170) that a strict divide between legal and illegal is neither particularly useful nor helpful. While in the microcosm that the application of organisational ecology to organised crime she is correct, from a policing perspective the exact opposite is true. As the entire notion of the existence of the police is to discipline those who act outside the law and if we do not define an enterprise as legal or legal, the ability to take investigative action to dismantle it, if it is the latter, is severely inhibited.

> In organised crime/mafia settings both criminal skills and social interactions play a huge role in the success of criminal activities; criminal skills and social interactions frame organised crime groups as dynamic. There is a lot to be learned from studies on organisational ecology, which sees organisations as evolving dynamic units in an evolving and dynamic environment
>
> The way markets react to the establishment of new groups is linked to the characteristics of the criminal environment. This implies that knowledge of other players in the market, the consideration of individual personalities and needs as well as an awareness of social and economic conditions in the environment, play a crucial role in predicting organised criminal strategies and results.

Sergi's work here cements the links between legitimate and illegitimate enterprises that have been argued throughout this thesis.

Smith (1980:382) following on from his earlier work, also created a spectrum based theory of entrepreneurship where he defines 3 types of businessmen, paragon, pirate and pariah.

> The first two need little explanation; they mark the saintly and sinful poles of the spectrum [ie the legitimate business es and the criminals] The pariah firm is a more complex matter, reflecting in the American experience those enterprises whose products or processes cannot pass ordinary tests of standing and reputation but for which demand is such that they cannot be rejected or dismissed
>
> They [Pariahs] tend to cluster at the margin of legitimacy, some recognizably illegal and trying to evade regulations and others trying hard to maintain a newly won or problematic measure of legality. In most business respects, they resemble other small entrepreneurial establishments; the most obvious difference has to do with the product or service."

An example of pariahs in the modern day would be cigarette smuggling, while the product itself is legal to purchase- at a certain age- buying packets from another country purchased off the street to avoid paying tax. Smith's classification of enterprise is important as it highlights a common thread-n profit- running between licit, semi licit and illicit business that is an important part of this thesis. The idea that criminals are similar in the way they operate to legitimate businesses ie they both have strong entrepreneurial elements, has been around since the early 20th century. Sellin (1963) makes the argument that OCGs and legitimate businesses are essentially similar "but the illegal nature of

the business creates problems that must be solved by means legal firms do not have to employ". This is sound logic borne out of reality, essentially stating that because legitimate enterprises operate within society's boundaries there are procedures and mechanisms to solve problems that arise. Yet, as the opposite is true in organised crime, there is a huge propensity towards violence. More than 30 years later Don Liddick (1999) gets very close to summarising the idea contained in this paper; he argues (1999:404) that "The primary assumption underlying the enterprise approach is that because organized crime is merely business activity which exists at the illegal end of the market "spectrum," theories developed for studying formal legal organizations may be applied to the problem of organised crime.

Under the enterprise model- developed by Sellin and furthered by scholars such as Liddick and Gottschalk- the unit of analysis is the illegal marketplace rather than specific groups, however the base of the theory is applicable to specific groups operating within the market as well as the market as a whole. Liddick concludes somewhat bizarrely, by inverting his earlier statement noting that while illegal and legal entities are somewhat similar in structure because the theories have all been developed for legal markets they should not be applied to illegal ones. As this paper outlines, he is right in the sense that there are differences in the way the entities at different ends of the legal spectrum operate, but wrong in the sense that there are substantial similarities that can be exploited by the application of techniques designed for legitimate companies involved in legitimate scenarios.

Research by the Centre of Economic Performance at the London School of Economics (2018:np) supports this perspective, giving an overview of Becker's Rational Theory model (that criminals commit crime after assessing the costs and benefits of doing so) and persuasively argues its applicability in an organised crime context as they act as "very rational profit maximising entities". The report also notes issues surrounding applying a traditional cost benefit analysis; this is a process where, as suggested by the name, you identify the costs and benefits of an action and subtract the latter from the former (Smartsheet 2018) to an OCG. Essentially, the issue resides around the fact that, whereas in a traditional business both costs and benefits are easily quantifiable, the illicit nature of an OCG means the costs associated with the group are both far reaching and difficult to assess - i.e. impact on society, legitimate business and policing. Benefits, for example the impact of taking down senior figures within the OCG, are also difficult to ascertain, because of the multitude of options that can occur following the arrests. One such option could be that the crime rate could drop because of the deterrent effect of the action, yet it could also rise if the arrests create a power vacuum which is then filled by another OCG asserting control over its new territory in a violent manner.

The researchers also noted the NCA method of mapping out the various facets of organised criminality, the agency has split activities into three main tiers Vulnerability (which includes Child Sexual Exploitation and Human Trafficking) Prosperity (which includes money laundering, fraud and cybercrimes) and Commodities (drugs firearms), with other threat areas such as criminal use of IT and offending in prisons come under the fourth pillar of cross cutting enablers. The benefits of mimicking such an approach through my research and ultimately within the U BATTLE toolkit, were considered in some depth, as aligning the sub sections of the product when developed with the threat groups identified by the lead agency for SOC makes considerable sense. The Prosperity and Commodities sections, in particular, seem an apt way to collate OCG activities, based on the author's own working knowledge of OCGs. In the end, the decision was made not to mimic the NCA structure for several reasons**,** one issue lies in using the vulnerability tier as a sub section, as CSE is often committed by networks of individuals rather than OCGs (IICSA 2019). However, human trafficking is

conducted by OCGs, one solution may be (although some academics would disagree with this) to this could be to encapsulate human trafficking and smuggling into the prosperity tier, as money is usually the main objective of groups behind these activities, however an argument could also be made for inclusion in the commodities bracket as often the victims are not seen as people, merely products, by the groups that exploit them (Europol 2017). This is the paradox of organised crime, it cannot be easily categorised.

The case against organised crime entrepreneurism: The Hobbsian perspective

Counteracting the 'enterprise' school of thought, Dick Hobbs, a renowned sociologist, argues, in his book *Lush life* (2013), that organised crime is a political construct that acts as a vessel for society's fear of both those of differing nationalities and those who live on its edges. He argues that it is used as a 'spectre' by police and politicians alike as a mechanism to further their own careers rather and that as a result the extent of its interconnectedness and sophistication is enhanced. While it is certainly true that both police and politicians are not above manipulating real world issues for personal gain. In this case, as demonstrated by numerous official documents from the Home Office (2018), National Crime Agency (2018) the threat organised crime poses is real and substantial. Having said that, the authors of those documents could subscribe to Hobbs' theory and be 'sexing up' the documents for personal or political gain, but for this to occur on such a sustained and high level over a number of years is unlikely. He goes on to state that the idea of organised criminality sits in between economic and cultural spheres and that creating an accurate definition of this wide-ranging concept is academic fancifulness and irrelevant in practical terms.

While on the one hand it is difficult to accurately counteract a threat if you cannot accurately define it, on the other hand it is true that many, many hours have been spent attempting to classify and quantify this form of criminality without success in the form of an ultimate unilateral definition. His claim that transnational organised crime is a 'state-constructed trope' reeks of conspiracy rather than logic, as while it is certainly plausible that the scale and scope of the threat has been exaggerated, the evidence base on surrounding the operations of these groups and their capabilities is solid. Another trope of his argument, which is intended as a knock against the entrepreneurial theory of organised crime, but in fact supports it, notes that part of the appeal of organised crime (2013:228) "the undoubted pleasure that is associated with a deal well struck of ego enhancement, the thrill of the game, the search for prestige among peers". The tone of the surrounding text certainly suggests he meant for this line to support his theory that organised crime is more of a social than economic issue, but the scenarios he describes while undoubtedly having social elements certainly has economic elements present. His description of UK criminality as a "disparate collection of marketized scavengers" would seem to trivialise the sophistication of groups operating in this area, though his point that the UK organised crime market lacks the "extra-legal governance" that is common in countries such as Italy with a high mafia presence is accurate.

Writing in 2001, in a research report commissioned by the Home Office, Hobbs and Pearson conducted an intricate analysis of the central echelons of the drug trade, a key point of which, ironically, determined that no one knows or has defined the precise location and geographical extent to which 'middle markets' extent. Hobbs has stated on numerous occasions that he doesn't believe organised crime exists as a specific phenomenon. Hobbs's statement is something which this author, and law enforcement, would profoundly disagree with, however regardless of this, Hobbs and Pearson are highly respected. While they acknowledge a lack of definition of their subject they do then go on to attempt to create one, arguing that a "middle market multi-commodity drug broker is identified as occupying a strategic position that links upper (importation and wholesale) and lower (retail) levels of the market"- here. They essentially found that while you could go from street to

multi kilo level in a small number of transactions, the middle of the market is wider, where some criminals are dealing with *any* illicit substance, while others are only supplying *specific* chemicals. Furthermore, they assess that the criminal networks (note the lack of use of the phrase OCG) involved in middle market drug distribution are typically small, with a correspondingly small number of suppliers and customers:

> One, possibly two people, who control finances and have established contacts, with a small team of runners working to them who collect and deliver quantities of drugs. Some runners are employed on a weekly wage basis; others are paid per transaction, while others are effectively junior partners in the enterprise (2001: VII)

In support of both the Rand study, which was conducted ten years prior to the Home Office research being published, and more generally in support of the core premise of this research, Hobbs and Pearson determined that: "Business principles are predominant in the drugs market" (2001: IX), which means that 'violence-avoidance' is the more general rule. Violence attracts attention and is 'bad for business'". Interestingly, they also conclude that the notion of organised crime groups as tightly organised, complex and hierarchical entities whose tentacles reach around the globe [i.e. the mafia and other drug cartels] is not supported by the evidence in this particular study, what is telling that they make no comment on the role, prevalence or existence of these entities overall. This is likely to indicate that their available evidence does not provide an accurate picture of the market entire market. In a separate journal article, based on the same research premise (2004:575), Hobbs and Pearson introduce a series of detailed case studies based on interviews with convicted of ecstasy dealers due to the challenging logistics of interviewing convicted criminals, this type of research is rare, but despite the dated nature, there is little scholarly research that delves into the market in this depth.

> The middle-market is fragmented, fluid and constantly mutating. Roles are exchanged, and people come and go. Within the enacted realities of the middle-market, hierarchical structures are a fiction. it is none the less marked by a horizontal complexity that envelopes a substantial cluster of financial relationships and transactions. We see any number of actors and networks, linking together different levels in the market, sometimes neatly, sometimes messily. Both Paul and Polly operated in a commercial zone between retail and wholesale, with an aversion to undue risk and a general lack of ambition acting as a constraint upon expansion. A distinct strength of these middle-market operations that they can utilise a range of operatives, from orthodox employees to independent traders. Such adaptability enables the middle-market not only to adapt to fluctuations, but also to restrict individuals to discrete segments of the network's operations.

This research provides intricate analysis of a previously unexplored sector of the drug market in the UK, it also, by virtue of its detailing of how the drug market operates on a basis that mimics legitimate enterprises (i.e. the mish-mash of structures, operators and entities, entry routes and opportunities for profit expansion) supports the key hypothesis of this research. A Europol Italian Organised Crime Threat Assessment (2013:3) demonstrates the extent to which the mafia(s) have excelled in this area. Noting that extremely skilled Cosa Nostra money launderers manage legitimate business structures and have infiltrated the economy of countries, including South Africa, Canada, USA, Venezuela and Spain.

> The 'Ndrangheta has repeatedly proven its skill in infiltrating political and economic environments. Through the shrewd use of its immense liquidity in legitimate business

structures it has been able to achieve a position of quasi-monopoly in sectors, such as construction, real estate, and transport.

In an extensively researched book based on case study analysis from around the world, including Canada, Australia and Switzerland, Sergi and Lavorgna (2016:105) note the power and influence the 'Ndrangheta hold both in cross border drug trafficking and as "poly-crime networks, which efficiently distribute their risks and maximise their profits through a much wider range of criminal activities, with money and power being the ultimate aims". Drawing on Hobbs (1998) *Going down the Glocal* article they also argue that this success is down to a unique structure allowing power and influence to grow both at home and abroad "The 'Ndrangheta is indeed the most powerful Italian mafia because it is the most local and the most global at the same time, it is successfully glocal". Furthermore, the authors identify (2016:43) an increasing interest from 'Ndrangheta clans towards investments in business. In particular the acquisition of legal businesses. This movement of a sophisticated OCG into the legitimate economy supports my research premise.

Indeed, as Riccardi and Berlusconi (2016:9) note, "Organised crime infiltration in companies is a complex phenomenon, and its study is still pioneering". However, because they have experienced it for much longer periods, Italian scholars are much further along the road to understanding than other nations. They have identified (Riccardi and Berlusconi 2016 Chapter 2) two main scenarios: either the legitimate enterprise is directly controlled by the criminals, or there is a (voluntary or forced) partnership where legal and illegal funds merge. They argue that to understand the issue fully you must mix both hard (official statistics) and soft "narrative" approach examining criminal actors and context to gain a fuller understanding of the motivations. While understanding the extent a target OCG has infiltrated into the economy can be an important part of an investigation, it is but one in a myriad of factors at play when determining the best way to investigate a group. However, their point about hard and soft research is undoubtedly valid and can be extrapolated to my research area as a whole. Operational intricacies of a group must be considered alongside more traditional factors and the application of legitimate business analysis techniques can aid this. Indeed, while the mafia stereotype is the image that springs to mind when you ask the average person about organised crime, as Gurciullo (2014) points out organised crime infiltration in the legitimate economy is not just an "Italian oddity" perpetuated by mafia groups, but a pattern reflected worldwide, citing an Indian OCG known as D-Company who own several trading and construction business and the Yakuza families of Japan whose semi legal status in the country have allowed them to invest in the Tokyo stock market.

Research by Rand, for the US Government and conducted by Reuter and Hagga despite it being published 30 years ago, predating the invention of the internet, still offers a highly relevant account of high-level drug trafficking. While the methods will have changed over the intervening period, the concepts of the market and how it operates would appear to have remained constant- though because little recent research on this scale has been conducted- this assessment is based largely on anecdotal conversations with law enforcement officers responsible for high level drug trafficking. The methodology for this research was based on a series of interviews with convicted cocaine and cannabis traffickers in low security federal prisons in the US incredibly they found around 40 % of interviewees were willing to provide highly detailed accounts of their careers and criminal associations, as well as market conditions, profitability and violence, the converse of this methodology is a reliance on the veracity of criminal accounts which, by their very nature, can be unreliable, biased, and vulnerable to exaggeration and omission of certain events.

One of the key findings was that unlike in legitimate business where it is traditional to gain experience at a lower level and then gradually work your way into a position of seniority, in drug

trafficking circles, barriers to entry into higher levels are minimal. When asked about this, interviewees cited (1989:XII) that "Energy discretion and luck were often all that was required". This ability to obtain seniority without either the financial resources or length of service outlines the enhanced flexibility of opportunity that the illicit economy offers compares to the licit. They also found that(1989:XII)., contrary to the widely held belief that 'mafia type organisations' control the drug trade at the higher levels, "Successful operation does not require a large operation, such operations do exist, but you can operate successfully independently. High level dealing can simply be brokerage, some relationships can last a long time but are not usually exclusive. "Trading relationships more like networks than hierarchical informants" This fits in with the general trend highlighted by the UN TOCTA (UNODC 2010) and Subsequent Europol reports (2011,2013,2017,2019) as well as work by Gottschalk (2009,2010) on illicit entrepreneurs.

Focusing on the business: violence within organised crime

Another surprising finding was that violence, or the threat of it, appeared to not be a prerequisite or even present in most accounts of high-level transactions, with respondents having "little experience of explicit threats or even a sense of danger". While this can be caveated by the fact that the interviews were conducted entirely in low security prisons where offenders are almost entirely non-violent, which could well have skewed the validity of the results, it does offer an overall picture of drug trends. The study also produced insight on the geographical intricacies of the cocaine and marijuana markets, noting that it appears to be national rather than regional. It also noted (1989:48) that "Experienced and opportunistic dealers not bound by location only credibility". The main implications for my research from the RAND study, which the authors judge to be "somewhere between informed speculation and empirical findings" are that any practical product that forms from this must be as flexible and innovative as the operations of the groups and networks it seeks to dismantle.

Desroches (2007), presents probably the most thorough examination of the upper level drug market since the aforementioned RAND study, he argues that, just as legitimate enterprises must prepare risk management strategies for likely eventualities, Illicit enterprises are required to engage in risk management strategies in order to protect their assets from seizure and their personnel from arrest and conviction. While the informal nature of the business means that, unlike Corporations, these strategies are not required to be formalised into written policies. Nevertheless, Desroches has categorised some of the mechanisms illicit enterprises use to protect themselves. These include the following: working within a small network of trusted associates; relying on kinship, friendship, and ethnic bonds; maintaining secrecy and operating on a need-to-know basis; delegating or contracting high risk activities to lower level operatives; maintaining information networks to stay abreast of what is happening in the drug scene; operating with multiple couriers, transportation routes, safe houses, etc. so that drug seizures and arrests of underlings will not result in unsustainable losses; using credit carefully and paying one's debts; paying associates and employees well; and treating people with respect. He argues that "These strategies help dealers to develop loyalty, maintain a low profile, avoid conflicts, insulate themselves from danger, minimize business losses and disruptions, and avoid arrest and conviction". Interestingly while the methods used by legal corporations do not translate across to those operating in the black economy, if you turn that concept on its head, simple business logic dictates conversely the methods Desroches identifies that are commonly used by OCGs could also be applicable in a legitimate context. This paradigm of legitimacy where the ability for similarities of risk management strategies to be transposed from the illegitimate to the legitimate but not vice versa, is the antithesis of this thesis' core concept: that OCGs act like legitimate business so therefore we can use techniques designed for use exclusively on the latter to assess the

vulnerabilities of the former. However, the fact that there are key elements of business operation that can travel both ways (between legal and illegal enterprises and vice versa) supports the core research premise.

He goes on to touch on the risk and reward concept, which both legitimate and illegitimate enterprises use (whether consciously or unconsciously) on a daily basis. The best example of this, from an OCG perspective, was at a conference I attended in April 2019 (ICTOCT 2019 np) where the former Bureau of Alcohol Tobacco and Firearms agent, Rich Mariano, spoke about a trend of OCGs. This trend showed that interstate cocaine traffickers were moving into cigarette smuggling because the profits were the same for both commodities, but the penalties were so much worse for drugs compared to cigarettes (20 years compared to less than five). In tandem with Mariano, Desroches (2007:830) describes upper-level dealers as "rational actors who enter the drug business consciously and deliberately after considering risks versus potential rewards." Adding that (2007:839) "Most view the risk of capture as relatively low in part because this is a consensual activity and they see themselves as competent and cautious", this assessment in itself supports my conclusions surrounding the similarities between legitimate and illegitimate enterprises as it highlights how, despite trading in an illegal commodity, high level drug dealers perceive themselves as being involved in legitimate businesses and therefore attempt to act as such. Desroches concludes most research indicates that higher level drug traffickers operate as independent entrepreneurs and that illicit drug markets are competitive and attract a variety of participants with varying resources, skills, and contacts. This conclusion is necessarily influenced by the available evidence, meaning that we can only draw firm conclusions from what we know. For example, there is a distinct lack of knowledge around the extent of the operations of the larger drug cartels, perhaps because they are more difficult to penetrate and tend to talk less to researchers due to the higher likelihood of reprisals. However, independent traffickers don't have those constraints and therefore, when incarcerated, are more likely to engage with researchers. This consequently makes any research more likely to include independent traffickers and less likely to include members from the big drug trafficking cartels or mafia style organisations. –although there is some research available on Mexican cartels, for example Langton (2012), Grillo (2013) and Hernandez (2014).

Organised crime entrepreneurship: Different areas similar to different types of legitimate business

In another section, Desroches summarises other research which itself summarises the state of drug markets in the UK, US and the Netherlands, describing higher level drug trafficking in Britain as a competitive market inhabited (2007:834) "by a range of small, flexible organizations the structure of which varies and reflects their diverse origins and local or regional circumstances". The scholarly accounts of US and Dutch drug trafficking (2007:834) similarly note the "entrepreneurial and competitive aspects of the trade and describe an open market and informal relationships between suppliers and clients which are sometimes long-term but rarely exclusive". Desroches (2007:834) ascertains that higher level drug traffickers closely resemble independent business persons in a wholesale distribution system who work for their own enrichment and not that of the organization and that "Most have no sense of membership in a large organization nor do they work under the direction or authority of others above them in the distribution chain."

This in itself tallies in well with research by Lusthaus and a number of other scholars, but with the caveat identified earlier about lack of access and knowledge of the more powerful organisations. However, when you assess some of the law enforcement evidence, such as the Europol Italian Organised Crime Threat assessment (2013), which notes that the 'Ndrangheta is heavily involved in International drug trafficking at a high level are the Cosa Nostra and Camorra, we also know through numerous books on the subject that the Columbian and Mexican groups play a significant role

internationally (Atwood 2017, Escobar 2009, Grillo 2013, Langton 2012) it is clear that the research supports the argument that both independent traffickers and larger OCGs mimic legitimate businesses.

With an area of study such as identifying the shape size and structure of international drug trafficking organisations, and by extent the core concept of this research, we must acknowledge that much of the knowledge and evidence base lies away from academia, with first-hand accounts from journalists and official law enforcement reports providing huge amounts of first hand detail universities ethical regulations would not permit. Desroches makes a point I that have echoed myself during presentations, prior to coming across this research: that drugs are commodities bought and sold in an illicit market. He furthers this initial analysis with a succinct summary arguing: "upper-level traffickers act as wholesalers and entrepreneurs who provide a product to clients/dealers below them in the drug distribution chain. Like business persons engaged in licit markets, dealers are rational actors who focus on profit, seek out economic opportunities, take into consideration the competition, are careful with their money, and attempt to minimize risk".

This assessment, that these illegal groups act as businesses, is further supported by research by (Adler, 1985; Adler & Adler, 1992; Desroches, 2005; Hafley &Tewksbury, 1995; Reuter & Hagga, 1989; Zaitch, 2002). Such research evidences the fact that high level traffickers use the language of business, that dealers view themselves as entrepreneurs, and that being a good 'businessman' is the ultimate compliment in the drug trade. This is supported by accounts from international cannabis smuggler Howard Marks (Marks 1996), Shaun Atwood's meticulous research into the Cali cartels operations following the death of Pablo Escobar (Atwood 2017), and Roberto Escobar's book on the rise of the Medellin cartel (Escobar 2009).

The County Lines phenomenon, where gangs based in major cities are expanding their business into small coastal or market town via the railway network and then using numerous methods of violence and exploitation to force their way into the local market (NCA 2018), is one of the most compelling arguments for organised crime operating as a business. However, these 'businesses' are without the moral or legal constraints of a traditional legitimate enterprise. A recent NCA update (2017:3) noted "County lines groups have a proven ability to adapt their operating methods and practices, including changing their use of phones, transport, accommodation or vulnerable people". They concluded that this is to evade law enforcement intervention as well as strengthen their criminal enterprise. Six force areas have also seen county lines groups conducting franchise style operations, renting county lines and customer contacts to other criminal groups. In some cases, the line owners also facilitate the supply of drugs to these groups. There is also some reporting of lines being up for sale or sold.

The franchising of organised crime is not new, the Zetas in Mexico (Narconomics 2016) and the Black Disciples in Chicago (Freaknomics 2005) are two of the most well-known examples and outline perfectly how widely organised crime is adapting measures used more commonly in legitimate businesses. Furthermore, a report, *From Postcodes to Profit*, commissioned by Waltham Borough Council (2019:25) identified one particular gang, the Mali boys, who were operating at a sophisticated level. "It's almost like a franchise, where the Mali Boys have got a very effective pyramid structure, business plan, but instead of burgers and woolly jumpers its Class A drugs and cannabis". This statement further strengthens the 'business hypothesis' as it demonstrates that OCGs at both a 'street' and international level are utilising legitimate business systems." The question of if, and to what extent, OCGs involved in cybercrime, also follow the trend of traditional OCGs in mimicking the operation of legitimate business has not yet been fully explored, though a recent report from the National Cyber Security Centre (an arm of GCHQ) did note that the structure of cyber OCGs is unique with each individual having a specific and valuable skillset.

Galeotti, an experienced Russian organised crime scholar, provides some insight into both how organised crime take concepts from legitimate business and also how the two systems cooperate. In his book *Vory* (2018) he talks of a 1979 (p96) meeting between businessmen and criminal syndicates, allegedly attended by the KGB as an observer, as well as a meeting in 1991 of around 30 Vory (essentially heads of crime factions) from different groups to carve up the underworld as the state fell (p107). He also notes (p115) they exhibit the more common criminal practice of operating behind charities, sports clubs holding companies and private security firms, to extort money. Another report, by Europol (2019) argues that sophisticated cyber OCGs have the technical capability to write and disseminate malware 'in-house' as part of their own business model'. However, for smaller groups or individuals, these services can be provided on a freelance basis, known as the crime as service business model. Certainly, more research needs to be done prior to coming to an informed conclusion. A Europol document published in 2011 (Europol 2011), identifies weaknesses and strengths in organised crime investigation across the EU. The fact that it its basic premise remains accurate seven years later is testament to the scope of the challenge law enforcement face against organised crime. Essentially it argues that law enforcement must modernise their skillset to keep up with the increasing digitisation of society and therefore organised criminality; it also argues that a step change in structure and priorities is needed to ensure this happens. The direction of organised crime is not part of this thesis and could easily fill a thesis in its own right. However, in relation to this thesis, it is of only passing importance as whichever form it takes, organised crime by its nature will always be profit driven and so seek to mimic or borrow structures and ideas from those on the 'white' side of the economy.

Gottschalk (2010) identifies Eduardo Contini as chief executive of the Camorra Mafia, the choice of language around the phrase chief executive is interesting, as Europol (2013) says Camorra is horizontal in structure, and therefore lacking a head of organisation in the traditional sense. There are several explanations for this, firstly, it could be a careless phrase and, well aware of camorra structure he didn't mean Chief Executive in the hierarchical sense, or secondly, he was unaware of the Europol research surrounding this, or thirdly, he has access to data that disproves Europol's aspersions, unfortunately without speaking to him first-hand it may be impossible to know. He also surmises that all criminal enterprises exist in relatively hostile environments primarily as a function of their illegality, as a result of this hostility, organisations often retain as simple chain of command based on mutual understandings and relatively discrete and concise set of operating procedures. This is a more logical conclusion as generally the more complex the structure the more room there is for division and dissent as well as law enforcement exploitation. In a separate (2010:295) journal article Gottschalk makes the point that legitimate enterprises do not hold the monopoly on innovation and that "Many illegal enterprises seem to innovate and learn quickly over time", this view is supported by Chief Constable Peter Goodman National Policing Lead for cybercrime, who in an interview with Policing Journal Police Professional (2016) spoke about how cybercriminals were able to innovate at a much greater pace than law enforcement. The fluid and unrestricted nature of organised crime is at complete contrast with the regimented and bureaucratic set up that exists within law enforcement; as a result the former is much better equipped to deal with the fast paced technical and societal changes than the latter.

Non digital crime typologies relating to illegal enterprise

In addition, research by Gottschalk (2009) Professor of Knowledge Management in Criminology, Norwegian School of Management BI, Oslo, splits organised crime into four categories, commerce and trade (any form of smuggling i.e. drugs/cigarettes), theft and robbery, production (fake credit cards, slavery and insider trading) and violence (protection, killing for hire and terrorism).

Respectfully, there are several flaws with this categorisation, the main one being that given how the crime has developed in the decade that has passed since 2009 with fraud becoming more prevalent which doesn't fit particularly into his categories, the latest ONS stats (2020) Latest showed a 19% increase in the total number of fraud offences referred to the National Fraud Intelligence Bureau in the year ending September 2019 (743,413 offences) compared with the previous year (625,988 offences). The data also showed large increases in figures reported to CIFAS and UK Finance, the other two UK reporting mechanisms. Gottschalk also includes money laundering as a supporting industry rather than an industry of its own, which given the evidence surrounding the existence of specific ML networks (FATF 2018) and that this is a common activity for the vast majority of OCGs (UN 2011) means there is strong argument it should be included as a typology in its own right. The inclusion of terrorism in a typology of organised crime and the niche nature of activities including in the production category compared to the commerce and trade category is also challenging to accept. In addition, his argument that policing actions to investigate organised crime should be organised as projects because the project structure is more suitable than an investigative structure for the 'brick by brick' approach he believes, is best suited to dismantling organised crime is one that makes logical sense (2009:98).

> Fighting a criminal organisation successfully is about removing the foundations for its operations. Criminals have to be removed. Valuables belonging to the criminal organisation have to be removed, and the markets on which it operates have to be closed down. To coordinate such a diversity of actions, a project structure should be put in place.

Essentially, this argument can be boiled down to the fact that a project is a business-related way to focus on solving a problem and an investigation is a traditional policing way and if you believe in a business focused approach as Gottschalk does, then the logical extension of that belief is that the most effective way to police that entity is by mirroring the approach of the legitimate enterprise it is mimicking. Gottschalk (2009) a renowned scholar in the business of organised crime, argues (2009:49) that Organized crime is a business and has many similarities to legal businesses, "However, because organized crime conducts its business in the illegal marketplace, it is subject to a series of constraints that limits and defines its organizational structure, size, and mode of operation". From personal experience, this Gottschalkian school of thought is particularly accurate.

Li (2012) examines two main OCG structures, firstly hierarchical, using the Hells Angels Motorcycle club as an example. Each chapter operates an independent hierarchy but reports into a national leader and the 'core group, in this case The Australian McLean syndicate, where the central personnel of the group remained constant but 'freelance expertise' was brought in as and when required. The paper also discusses variations in how such groups are set up and outlines four sub categories of OCG networks: mesh, directed, transactional and flux. While an interesting academic discussion, the multiple structural manifestations of OCGs is not the purpose of this paper, primarily because the research concept does not discriminate against any particular structure and, as it is based on an analysis of the group. However, the work also commits a common error in referring to "the Italian Mafia" in another section as if they were all one organisation. The fact is that there is no homogenous group by that name (Sergi and Lavorgna 2016), only several different factions from various sections of Italy such as La Cosa Nostra, 'Ndrangheta and Camorra. This basic error does call into question the veracity of other points the paper makes.

Mann, a scholar at Queensland University of Technology, argues that there are multitude of elements that intertwine to form the label of organised crime.

> The concept of 'organised crime' is constructed and mobilised by a milieu of complex factors and discourses including a politics of law and order, and international insecurity, combined with the vested interests and priorities of scholars, politicians, government officials, and policing authorities.

Gilmour et al (2001) analysed the reasons the reasons behind the Australian heroin drought of the early 21st century. They discovered that initially would-be heroin users increased their consumption of cocaine and amphetamines, this is converse to what was then existing knowledge which suggested they are beyond social or market control. Ultimately, they postulate that as a result of the Australian experience contrary to popular belief established drug markets may be vulnerable to intervention, and that drug market policy settings can be manipulated. Extrapolated into its context, this research indicates potential ability for analysts to utilise the U BATTLE framework to identify the vulnerabilities in the local drug market and manoeuvre the market away from one type of drug and towards another.

Windle (2013) a scholar specialising in illicit markets, uses research from several autobiographies of key figures involved in organised crime in Essex in the 1990s to determine the mechanics of their operation. As he addresses in the article there are several weaknesses in this methodology, not least that an autobiography is usually written to portray the author in a positive light and therefore often omits key details, also details are often altered to protect the identities of the authors and those present at the time.

“The Firm was not a homogenous organisation with a central bureaucracy, leadership, and budget. Rather it was a loose network of individuals, working around a more stable core (Kenney 2007) connected by their relationship with Tony Tucker”. This draws parallels with a large legitimate business where it is a common approach to have a core of staff, supplemented by specialists. Windle (2013:386) makes a further key point that the activities of Tuckers Firm spanned the “spectrum of legitimacy”. He evidences use of illegitimate means to further profits of legitimate businesses, whilst also making profit from purely illegal activity unconnected to legitimate business. This merging of the economies of the white and black markets, of profits from one element being used to further another, again strengthens the central plank of this thesis’ argument, a line often employed by the author in presentations, thsat organised crime operates like a business the difference is the commodity is cocaine rather than coffee. Further to this, it stands to reason that if, as has been consistently outlined, OCGs are operating like business then business analysis is an appropriate, and fruitful, method of assessing how they operate.

Cyber entrepreneur typologies

Lusthaus (2019), a professor of sociology and director of the human cybercrime research project at Nuffield College, Oxford University, has written a highly detailed and well researched book on profit driven cybercrime, where he succinctly summarises a key trope of this research that organised crime acts like a business, and that this concept also applies to cybercrime. Lusthaus (2019:3) argues that cybercrime has evolved from more altruistic origins where the motivation was the technical challenge, to the current state of play where cybercrime, “just like other elements of transnational organised crime,” now operates like a business, its goods and services may be illicit, but it is highly organised, complex driven by profit and globally interconnected.” He argues that applying the term industry to cybercrime is an accurate reflection of how it functions, given the parameters he sets out below, the evidence suggests he is correct and furthermore these criteria can be just as accurately applied to the more ‘traditional’ elements of transnational organised crime. He defines an industry as a set of businesses all operating in similar ways. He also argues (2019:66) that, regardless of the

illicit nature of goods and services provided, “the cybercrime industry operates according to the same principles of industrial organisation”.

“First, there is a clear division of labour by which different activities are handled by different specialists. Second, specialisation has brought professionalization – professional criminals seeking maximum financial. Third, [points] one and two mirrored by growth of virtual markets” (2019:67)

This is clear evidence of the structural and definition similarities that have been previously outlined in this thesis, furthermore, he notes (2019:91), again similarly to findings on ‘traditional’ transnational OCGs previously outlined that “cybercriminals increasingly organising themselves into groups which resemble legitimate businesses and that “Some of these illicit teams have reached a point of sophistication that makes them almost indistinguishable from legitimate businesses complete with physical office space and formal organisational hierarchy”. The enhanced level of sophistication to which Lusthaus refers is bolstered by an article published by himself in Global Crime journal in 2012, which he refers to in his book, where he notes “Today’s cybercriminal industry exhibits significant levels of structure and governance alongside more small-time collaboration”.

Essentially, he is saying there are cyber OCGs, depending on their role, that mimic both small and larger enterprises. There is evidence through cases studies included in this research, namely Sparrowhawk, Neem, Vanbrugh and the Scottish drugs cases, that this adaptability both translates to non-cyber OCGs and OCGs involved in varying criminal activities, which supports the overarching general principle of this research that organised crime as a whole operates on a similar level to legitimate enterprises.

Sergi and Lavorgna (2016:182) offer an opposing view, arguing that cybercrime isn’t necessarily organised and that assuming so risks weakening an already broad definition.

> In this new binary relationship cyber/organised, the threshold to consider something as “organised crime” is lowered, if possible, even more than it was for other serious and organised criminal activities in the country. Without denying the possibility of organised crime groups increasingly operating online and of the creation of new organised crime groups in cyberspace, limited reliable data available do not allow to draw an exact comparison between the existing offline criminological categorisations and the new online phenomena.

Furthermore, they note (2016:183) that this conflation could have serious consequences in terms of identifying the modus operandi of both crime types. Something that, given academic and law enforcement understanding of organised crime is not what you could call complete, it is important to clarify.

County lines as a form of entrepreneurship

Spicer, a researcher from the University of Western England, spoke to numerous detectives involved in the investigation of the County Lines drug dealing methodology where OCGs and gangs involved in the sale of crack cocaine and heroin expand from their territories in urban cities to smaller inland and coastal towns though a mixture of exploitation force and marketing tactics (NCA 2020). He determined, similarly to the conclusions of Wainwright (2016 et al), the vast majority of my respondents in both my survey and interviews and my experiences trialling the U BATTLE toolkit on both live and historical cases, that the dominant narrative expressed by was that County Lines groups operated very similarly to a legitimate business. (2018:877) The dominant, if not sole,

motivator…was the desire to generate profit". He argues that the decision for the groups selling drugs in smaller rural, market, or coastal towns was viewed as "being the result of a considered choice by these groups of where they believed they would have the best chance of being able to infiltrate and take over local drug markets, with least resistance from established local dealers.

Spicer (2018:876) adds, "Despite other smaller cities likely having a larger potential customer base, participants suggested that County Lines groups judged drug markets in smaller towns to be easier to take over and therefore riper for profit. Thus, in a manner similar to the conventional business practice of hostile takeovers." The specific details regarding how the group came to make that decision and the extent to which, if at all, they used any business analysis techniques to evidence their assessment to present it to their superiors, is by the very nature of these groups unclear. However, the rationale of their decision and the similarity to methods employed by legitimate businesses as explained by Spicer, certainly support the core hypothesis of this research that legitimate business analysis techniques can be used against OCGs. He makes a relevant, if oft repeated, point (2018:883) regarding the issues surrounding basing the development of knowledge around a particular area of organised crime purely on engagement with law enforcement, as because-by definition of their role- law enforcement are only operating with a limited picture of a OCGs activities this is "unlikely to provide a wholly accurate picture of a drug market". However, given the traditional lack of engagement from criminals operating in this area with academia (for rather obvious reasons) and the solution, which as Spicer states would be gaining suitable access to these groups to shed light on whether their decision making and general conduct is quite as business orientated as has been suggested is, for a multitude of legal, moral, and ethical reasons unlikely at best. However, if it could be done, the benefits in terms of relating the information back to the development of police strategies could be significant.

Since its emergence into the public sphere in 2017 (National Crime Agency), despite the wide range of drugs readily available on the UK market, the dealers working within the County Lines model have tended to stick to the distribution of crack cocaine and heroin. Again, drawing on law enforcement expertise Spicer (2018) argues that the County Lines dealers had made an informed judgement to deal in these drugs as they had a more complicit and dependable clientele, allowing for a more robust and efficient business model. This, again, is information that can be fed back into law enforcement strategies, though with the caveat of perhaps examining further the source of the interviewed officers viewed. Finally, he draws parallels with the branding of the phone lines the County Lines groups use and how similarly to a legitimate enterprise they closely guard the use of features that can easily identify them such as a specific logo or name, as just as in the legitimate sense it generates familiarity and trust and therefore enhances sales.

The Kingpin strategy through the prism of UK and international entrepreneurship

The Kingpin strategy, devised by the US Drug Enforcement Administration (1992), has been the central plank of US law enforcement actions for the last 25 years. According to DEA official documents, the strategy focuses investigative and enforcement efforts on the largest drug trafficking organizations and aims to disable them by attacking their most vulnerable areas, for example the chemicals needed to process the drugs, their finances, communications, transportation, and leadership structure.

> This strategy focused enforcement efforts and resources against the highest-level traffickers and their organizations and provided a systematic way of attacking the various

> vulnerabilities of the organizations. By systematically attacking each of these vulnerabilities, the strategy aimed to destroy the entire organization, and with it, the organization's capacity to finance, produce, and distribute massive amounts of illegal drugs. Each blow weakened the organization and improved the prospects for arresting and prosecuting the leaders and managers of the organizations.

A French newspaper article (*Le Monde* 2015), quotes a speech made by Former DEA Head Robert Bonner at a DEA meeting in 2012, celebrating the 20th anniversary of the Kingpin Strategy, which was implemented during his tenure. He said, by any measure major drug trafficking outfits are large organizations.

> They operate by definition transnationally. They are vertically integrated in terms of production and distribution. They usually have, by the way, fairly smart albeit quite ruthless people at the top and they have a command and control structure. And they also have people with expertise that run certain essential functions of the organization such as logistics, sales and distribution, finances, and enforcement.

He went on to state that it followed that the removal of those smart people at the top, not to mention the experts in logistics, would render the cartel ineffective and so cut off the flow of narcotics to the United States. The theory behind Kingpin is similar to that which underpins this research, though this was not cognisant to the author when the gem of the idea for U BATTLE began to generate. The fact that the US came up with an approach based on a similar concept of attacking vulnerabilities in an OCGs business operations 25 years ago and are still continuing with that strategy, gives veracity to the research approach. However, if you take the fact that despite some high-profile successes, organised crime has continued to flourish the overall success of the Kingpin strategy is in one way self-evident, because of the continued operation on a global scale despite the specific targeting employed.

Though in all honesty, this is also a slightly harsh conclusion as in reality none but the most optimistic of law enforcement officials believed that the Kingpin strategy would eradicate organised crime all told, or even that it was theoretically possible to do so. However, it has undoubtedly had some successes during its history, including the targeting and arrest of the 4 leaders of the Cali Cartel in the mid-1990s (Atwood 2017). The cartel rose from the ashes of Pablo Escobar's Medellin cartel which crumbled following the death of Escobar in 1993. Unlike the Medellin which was a loose structure of associations controlled by Escobar (Atwood 2017) the Cali cartel was run by an executive board of four men each of whom had an equal share in making decisions (Atwood 2017), as well as the more recent arrest and subsequent indictment [via several well documented escapes] of Sinaloa cartel boss Joaquin El Chapo Guzman. Le Monde (2015) states the strategy, it appeared, had been an unqualified success. "When Pablo Escobar was on the run, for all practical purposes, his organization started going down... ultimately it was destroyed. And that's the strategy we have called the kingpin strategy," crowed Lee Brown, Bill Clinton's "drug czar," in 1994. What the Le Monde article fails to acknowledge is the significant part the money and intelligence from the Cali cartel played in Escobar's death and their reasons for doing so (Atwood 2017). Ultimately, the Kingpin strategy cannot be said to have succeeded, but at the same time should not be judged to harshly, as in reality the problem it was created to solve is the modern equivalent of the Gordian Knot and no one from any law enforcement or political background has come close to developing a solution. While there are no illusions that this research will act as a silver bullet in this arena, it is hoped the tool can play a small part in reducing the impact of these organisations.

In the book *Busted,* which details a police operation to bring down an OCG involved in LSD, Pritchard (Pritchard and Laxton 2018;87) described the structure of the group and the extent they operate in a similar way to those on the right side of the law. “The top men, Todd and Cutherbertson had to approve everything. just like a legitimate business they kept control and make sure the people at the end of the network grew slowly and carefully”. This concept is furthered by Graham Johnson in his book *The Cartel* (2012:99*)*, which offers insight into the operations and structure of what is billed as the UK’s biggest drugs cartel. Johnson is a journalist and author who has significant experience in both speaking to police officers and criminals, quotes a police source known as the analyst who identifies the extent of the structural similarities between sophisticated OCGs and big organisations such as the police.

> It’s [the cartel] like the police which has its own hierarchy, you could break it down into an organisational chart that shows you’ve got your CEOs at the top, you’ve got your MDs, who meet with similar MDs from supplier crime groups and talk about the wider implications of drug importation – how do we get the commodities across. So you need managers below the MDs to organise these options, so below the managers you need the professionals and tradesmen to do these jobs and below them the runners and fixers who keep it all ticking over. It’s incredibly long-term planning, they realised that with greater planning and sophistication comes larger quantities which in turn meant you were in a better position to negotiate with the Columbians [main source country for cocaine]

One case Johnson reports is a perfect example of risk and reward, a common strategy to aid decision-making in business. The cartel decided to invest in a large container ship which would dock in Liverpool from Venezuela every 2 months, the cartel employed specialist marine engineers and underwater welders to cut secret compartments in a ship’s hull so they could bring in a 1000kg every two months rather than 200kg every week. This reduced the risk of being caught by making less journeys and increased the reward by enhancing the capacity of the ship to carry cocaine thus raising profitability, the risk associated with being caught on that single journey did not increase as the penalty for smuggling 200kg of drugs is the same as smuggling 1000kg. It is the similarity within these business processes that allow legitimate business analysis techniques to be adapted and used on organised criminality. This is one of numerous examples of OCGs following risk and reward strategies and serves to illustrate this thesis’ core research concept. Additionally, Johnson’s later work Young Blood, referenced in the introduction also highlights the intense structural similarities that exist between legitimate and illegitimate enterprises.

Insight Crime (2020), a research institute that combines journalistic investigation with analytical insight, introduces the concept of visible and invisible drug traffickers arguing that a combination of both legitimate business instinct and high-profile violent acts are needed.

> Behind every famous drug trafficker, there have been many “invisibles.” Rather than dressing in alligator boots, sporting gold chains, and gold-plated pistols, these drug traffickers have shunned ostentation and the limelight. They act like legitimate businessmen because the drug trade needs protectors. With high profits and untrustworthy participants, every invisible needs a “visible” to ensure that agreements are respected and that debts are paid.

They note that Pablo Escobar was the “ultimate visible trafficker”, becoming a member of Colombia’s congress, opening his estate to the public and populating it with exotic wildlife. They also chronicle that after his fall those who were less visible were unaffected and able to continue the business.

> Yet when Escobar fell, dozens of invisibles remained Escobar's successor, Diego Murillo, alias "Don Berna," learned from Escobar's mistakes, living in the shadows in Medellin, his alias known to all, but his face and real name known to few. Still, he too stepped into the limelight in 2003 when he entered the paramilitary peace process with the government and sought, unsuccessfully, to evade imprisonment and extradition. But hidden behind him and his criminal structure, the Oficina de Envigado, were dozens more invisibles, doing business and making money under his protection.

This mix of individuals in criminal organisations exhibiting legitimate and illegitimate traits at the highest levels of organised crime, goes some length to illustrate the validity of this research, this hybridity of operation is also seen in the street gangs of Rio De Janeiro, as Kemp (2007) discusses.

At the top is the owner, a kingpin who controls drug trafficking in a whole favela, below him may be one or more general managers, depending on how large and well organised the shanty town is, there is often a product manager who oversees quality control, then there are the soldados who do the fighting, the muling and the street dealing and finally the lookouts who are often children.

Research by Naratarjaan (2015) makes a series of highly relevant points regarding the study of criminal enterprises, they argue that aside from historical accounts of 'premier league' OCGs - such as the Mexican and Colombian cartels, the Italian Mafias, and several international drug smuggling rings - little has been written about "kinds of enterprises involved, the tasks undertaken, or the ways that.[groups are] organized below that top tier of criminality". While the operational side of the research has been specifically designed to combat the OCGs operating at the highest level, to ensure optimum usability by law enforcement, it must also be suitable to assess groups that operate at national and regional levels dealing in single kilograms or other commodities, rather than just those with immense power and liquidity. Therefore the challenges highlighted, which resonate across the entire law enforcement pyramid, are highly useful to study.

Participants in these enterprises have constantly to guard against discovery by the authorities as well as predation by rival criminals, and they are, therefore, suspicious of anyone showing an interest in their activities, including researchers. This greatly limits the scope for the ethnography of active organizations, Researchers encounter further difficulties due to the international scope of drug trafficking and sometimes due to the language difficulties. Consequently, they are mostly limited to studying organizations that have attracted the attention of law enforcement agencies. Another issue in terms of access is that as access tends to be facilitated to law enforcement cases following completion and often once considerable period of time has elapsed. Meaning that the information then available to researchers for analysis is often out of date, sometimes by a number of years, and the pace of evolution in criminality (Police Professional 2016) means this lack of timeliness will severely limit the learning that can be gained from this analysis. One way this can be addressed is through greater trust and cooperation between law enforcement and academia, more researchers being vetted to access police cases, and opportunities for short secondments available in both directions, rather than the current situation where an officer only tends to engage with academia when they are close to retirement and looking for another career.

Harvey and Hornsby (2016), both scholars at Northumbria University, conducted an in-depth study of the criminal operations of the Baxter family. The research was conducted via interviews with associates of the Baxter's and law enforcement officials; they attempted to speak to members of the extended criminal family firm, but they refused, thus proving the earlier point regarding the issues of studying organised crime groups relying only on a law enforcement perspective. They found that this family and its individual members elected to utilise a skill set that is also associated with successful

legitimate businesses. The authors concluded that, if the socio-economic environment in this Northern town had offered wider legitimate career choices, Baxter could have been a very successful businessman rather than a pillar of the criminal enterprise.

> This entrepreneurial guile was employed to build a criminal enterprise that merges illegal with legal activity and that is characterised, as discussed in the next section, as being: profit driven; able to anticipate change and move into different lines of business; and one that actively manages 'business' risk. (2016:3)

The authors also made the point that in some industries the boundaries between the legal and illegal enterprises can be indistinct; in particular those markets where there is a substantial legal element alongside a continuous presence of an illicit sector. An example of this is the cigarette market where the legal element- the selling of cigarettes to retailers- can be carried out alongside the illegal act of selling cigarettes on the black market to avoid the substantial tax mark-up. Earlier research (Hornsby and Hobbs, 2007; as well as L'Hoiry, 2013 and Wiltshire et al., 2001) has demonstrated that in terms of in securing market position and enhancing profit margins there are few moral distinctions between those illicit operators and big 'legitimate' tobacco firms. Though I disagree with some of his earlier work, which argues that organised crime is a construct, Hobbs (2003) makes a highly interesting point regarding the interplay between factors traditionally considered as legitimate and legitimate in a criminal entrepreneur style business such as Baxter's. Baxter's business began on a totally illegal footing and in its expansion has moved into legitimate sectors using a combination of quasi legal and downright illegal methods. He argues that "[No] matter how sophisticated and market orientated organized crime becomes, and no matter to what cause its profits contribute, the cultural inheritance of traditional visceral practices remain central to the establishment, marketing, regulation, and culture of illegal markets" (Hobbs et al, 2003: 681). Essentially, he notes that if a group starts off with violence as their raison d'etre then it will remain the key method of enforcing discipline and generating expansion, regardless of the addition of the number of 'legitimate' areas of business. It is these crossovers between legitimate and illegitimate enterprises, which are examined in more detail in the case study below, that form the basis of the premise of this thesis, and by extension the operational toolkit that has been a result.

Management consultancy perspective

Lock (2019) a former commercial business consultant and now an independent researcher, brings an entirely business strategy focussed perspective to this school of thought. The models he has developed he currently uses for consulting purposes and therefore the details are not entirely publicly available.

Given his background, the structure, syntax and processes he uses in his analysis are consistent with those used in business and change management and therefore need to be adapted for a policing purpose. There are also significant questions around the source of this information, which he has been evasive in divulging. From our conversations the author has been able to glean that the information comes from a source within the criminal organisation but not the extent or nature of that relationship, therefore some caution must be applied to the conclusions he has drawn as we are unaware of the full motivations of both the researcher and the source. Lock says the London Masonic Syndicate (LMS) is currently embedded in Westminster and a Chiltern town, due to the time-consuming nature of the task the decision was taken not to try and determine the veracity of the LMS by approaching law enforcement and determining whether the OCG has been mapped, for the purposes of this analysis I will assume the information is accurate. The case study he introduces this consists of a group of individuals from New York, Chicago and West Coast crime families that he

argues used formal organizational design techniques and deployed as a 'syndicate- as- business model' to facilitate the transplant and infiltration of to the West End of London from 2001. He argues, correctly I believe, that a "New Radical Analysis is required [of organised crime is needed, one that] offers a specific investigation of the symbiotic and integrated nature of the business model strand of SOC in real time as a 'precise conceptual configuration' that combines extra-legal governance components with an enterprise model. He also argues, as supported by the evidence in this thesis that, as of yet, neither practitioners nor academics have not addressed syndicates as business models. He notes that the approach is too often focussed on individuals and that an approach focusing on the operational similarities between OCGs, and businesses is the way forward. He sets out five levels of induced criminal reconfiguration, essentially how organised crime mimics the structures of legitimate businesses. The model would appear to accurately depict the processes that occur when the decision was made for the Mafia families to transplant to London and how they set about creating and expanding a criminal empire, utilising the similarities between the structures and mechanisms common in legitimate businesses. However, the wording of the model is jargon filled and unwieldly, which means in its current state police officers are unlikely to apply it to a new group.

First-hand experience in this area suggests phrases such as "Reconfiguration of organization using ICTs as a 'central lever.' are simply not in the vocabulary of most police officers or analysts. Therefore, for this concept to have any applicability in determining an investigative strategy, it would have to be translated into policing terminology. In addition, perhaps because Lock does not have direct policing experience, while he states the aim of the model is to dismantle the OCG following a detailed analysis of its business processes, the specifics of how he intends to merge the intelligence gathered through his business model with the development of an investigative strategy to act on these findings are unclear. While it is clear from the nature of Lock's expertise that the model supports my theory, that there is a huge crossover between the operational similarities of legitimate and illegitimate enterprises, what is also clear is significance of the gap in the translation between business language and that of policing.

A place for criminological theories?

The theory of situational crime prevention (Clarke 1980) has stood the test of time and is relevant here given that the ultimate aim of the research is to give police the tools to decide the most effective way of dismantling these OCGs. This theory dictates that types of crime can be severely reduced or removed completely by targeting external factors which have an impact the preparation and execution of a specific crime type. The theory has been proven on several different cases studies, the most notable being the substantial drop in car thefts following the introduction of numerous anti-theft measures such as crook locks and central locking that made cars easier to steal (Home Office 2016). A further example is the law in the UK which requires all motorcyclists to wear crash helmets. When introduced in 1976, this measure was introduced to save lives, but it has also had the unintended effect of reducing thefts of motorcycles (Mayhew et al., 1976). This is because people are unlikely to take someone else's motorbike on the spur of the moment unless they happen to have a crash helmet with them, otherwise they could easily be spotted by the police.

In the context of the research this theory is highly relevant, as it confirms that there are other successful ways of reducing levels of a crime rather than simply arrest and prosecution. As well as being disruptive to individual criminals, employing situational crime prevention could also have an impact on the activities of an OCG that was involved in that same crime type. However, this is by no means a silver bullet, for several reasons. Firstly, not every crime can be so easily prevented, for example there is no easy way (that has yet been thought of) to stop money being laundered or

shipments of drugs being smuggled in via UK ports. While there have been many small innovations in this area, overall they have done little to stem the tide of OCG activity, however, the knowledge that situational crime prevention measures can have a significant impact on some crime types should be a worthy consideration when conducting an investigative strategy.

The above section has clearly outlined how organised crime and businesses operate on a similar plane and that those similarities are visible throughout the entire spectrum of criminality from mid-level and wholesale drug trafficking acting as independent contractors to the pyramid like structures of gangs running county lines as franchises. The amassed evidence is that organised crime operates as a business. That tenet of the research now confirmed, it is time to examine existing ways of measuring and analysing organised criminality.

A critique of existing ways of measuring and analysing organised criminality

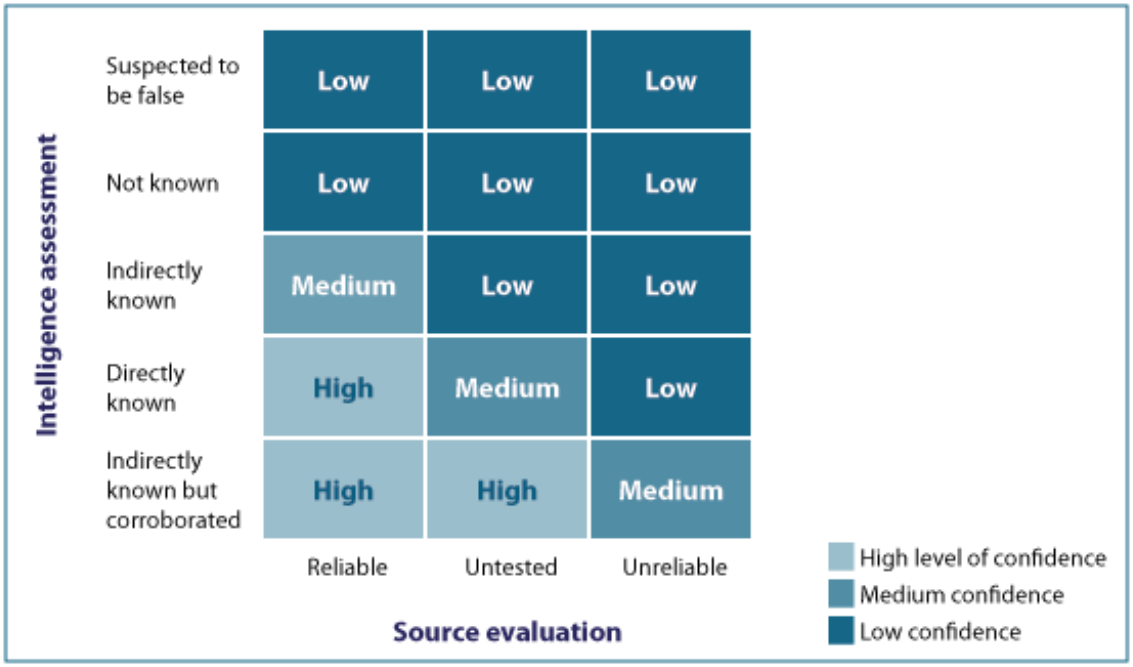
Kemp and Shaw, from the International Peace Institute, argue that it makes sense to develop "a cluster" of measures that will enable trends to be tracked over time and to judge whether the situation is improving or not, though they are talking about measuring the impact of Organised Crime, rather than assessing the effectiveness of models designed to assess the vulnerabilities of a business. The cluster approach is also deployed by the National Crime Agency, in the measures used to assess the threat posed by OCGs in their OCG Matrix (OCGM). The OCGM is the premier mechanism in the UK for mapping and recording organised crime, now housed on the Police National Database (PND). It records groups, members, businesses, criminality, essentially providing a detailed summary of a groups activity and the threat harm and risk it poses, the actual intelligence on which this summary is build on is housed by the individual agency responsible for the management of the OCG.

Currently 71 agencies input information on 4,600 active OCGs linked to 36,000 people (NCA 2019), the OCGM Data is shared with partners and is searchable on PND, which faciliates information sharing and understanding of threats, previously this was only manaully upload to a central spreadsheet on a quarterly basis, now the threat is able to be measured in real time this is a substantial benefit. The risk of harm a group poses is assessed by criminality, intent and capabiliity and extentiating factors Each intent/capability type is divided into activities, Each activity is assigned a score, which is expressed as a band (Band A: Highly organised and disciplined, expert, resourced, coerce and corrupt others; Band B: Display structure and competence, may use violence and/or specialists; Band C: Fluid, disorganised, may have transient membership and lack skill and/or resources). The harm assesments run across the horizontal axis of the scoring matrix and the tiers of investigation (Tier 1 - Comprehensive operational/investigative intervention; Tier 2 - Limited plan/action that prevents or disrupts; Tier 3 - Proactive intelligence development; Tier 4 - Developing opportunities for action) run across the vertical axis. An example of the OCGM banding criteria is below, for security reasons a screenshot of the OCGM interface on PND cannot be shown.

Fig x OCGM banding

impact local, hidden Highly organised and disciplined, expert, resourced, coerce and corrupt others	impact local, diluted Highly organised and disciplined, expert, resourced, coerce and corrupt others	impact visible but temporary Highly organised and disciplined, expert, resourced, coerce and corrupt others	impact visible and acute Highly organised and disciplined, expert, resourced, coerce and corrupt others	types, visible, chronic impact Highly organised and disciplined, expert, resourced, coerce and corrupt others
5B Low level or infrequent criminality, impact local, hidden Display structure and competence, may use violence and/or specialists	4B Moderate scale or volume, impact local, diluted Display structure and competence, may use violence and/or specialists	3B Serious or frequent criminality, impact visible but temporary Display structure and competence, may use violence and/or specialists	2B Significant level of criminality, impact visible and acute Display structure and competence, may use violence and/or specialists	1B Extremely high scale, multiple crime types, visible, chronic impact Display structure and competence, may use violence and/or specialists
5C Low level or infrequent criminality, impact local, hidden Fluid, disorganised, may have transient membership and lack skill and/or resources	4C Moderate scale or volume, impact local, diluted Fluid, disorganised, may have transient membership and lack skill and/or resources	3C Serious or frequent criminality, impact visible but temporary Fluid, disorganised, may have transient membership and lack skill and/or resources	2C Significant level of criminality, impact visible and acute Fluid, disorganised, may have transient membership and lack skill and/or resources	1C Extremely high scale, multiple crime types, visible, chronic impact Fluid, disorganised, may have transient membership and lack skill and/or resources

The following matrix (College of Policing 2020) provides an indication of the level of confidence that can be taken in the intelligence dissemination. This informs decision-making and supports interoperability between agencies/organisations. From a U BATTLE perspective this a useful tool to grade the importance of intelligence gaps and could aid the development of the AI version of the product.



The Sleipnir Organized Crime Assessment Tool developed by the Royal Canadian Mounted Police and included in the *OSCE Guide to Intelligence Led Policing 2017* Aims to assist in the ranking and comparison of the threat of organized crime groups as well as to identify intelligence gaps. It calculates how an OCG scores in numerous criteria (see below). Each of the 12 values can be scored using the following method (P= points): High = 4 x P, Medium = 2 x P, Low = 1 x P Nil = 0, Unknown = 2 x P.

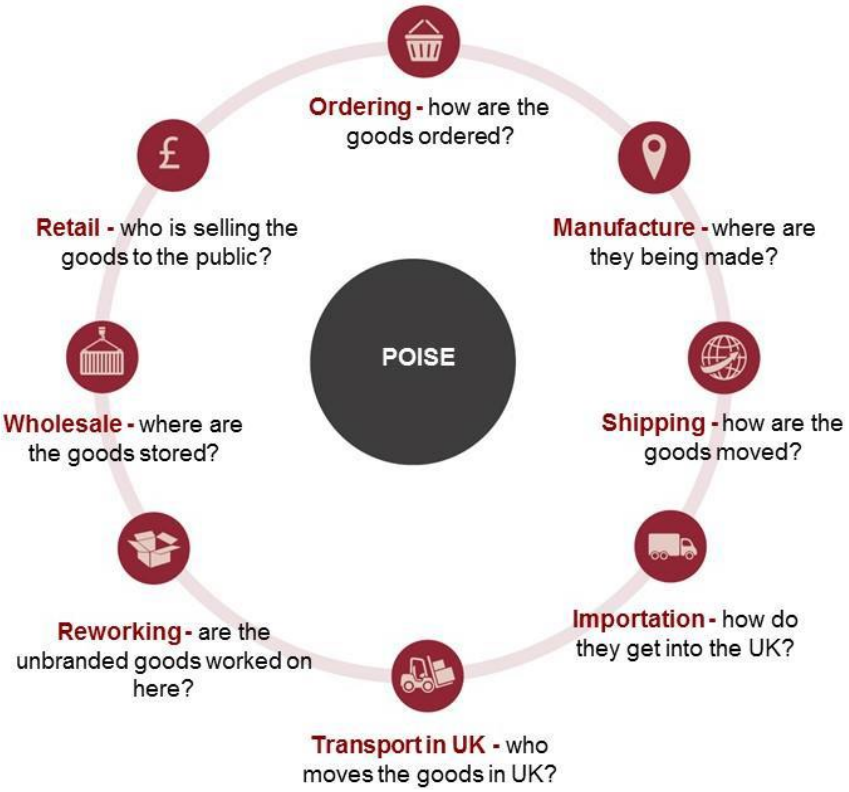
Table 8.2 **A comparison of five crime groups using the Sleipnir model**

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5
Corruption					
Violence					
Infiltration					
Money laundering					
Collaboration					
Insulation					
Monopoly					
Scope					
Intelligence use					
Diversification					
Discipline					
Cohesion					

DEGREE OF THREAT	
High	
Medium	
Low	
Nil	
Unknown	

However, the OSCE, (2017) admit that several caveats must be applied to this technique, namely the criteria not reflecting the sophistication and links between OCG. Moreover, this criteria is based on societal values of Canada, which although similar to those in the UK are not identical; this may hinder the transferability of the methodology when considering it for use in the OCAI.

The IPO has created a framework called *Poise (*WIPO) 2019 which represents the stages in the lifecycle of counterfeit and pirated goods and identifies opportunities for intervention at critical points in the lifecycle. Essentially Poise represents a combination of crime script and criminal business analysis, it breaks down the entire criminal process and offers investigators and analysts an overarching framework to split their criminality.



The sections on wholesale, retail, ordering, manufacture, shipping and importation are highly useful in splitting up the key elements in the commission of counterfeiting crime and can also be transposed well into other examples of commodity-based crimes. Unfortunately, the discovery of the poise framework was after the conclusion of both the live and historical case studies that were conducted for this thesis.

The College of Policing has developed a logic model (introduction to logic models ND) which it says should be applied to any form of problem faced within policing, the model is split into four parts (problem, results, outputs and outcomes), the first section encourages the user to describe their problem based on analysis of data and relevant information. The second looks at what your response will be, the third you want to achieve and the fourth the impact of that achievement. While there is certainly validity in sections of this approach, particularly the first, third and fourth elements, which seem sensible. One critique would be perhaps outputs and outcomes could be merged together in the interests of time. The main criticism is the results section feels as though it

could be more detailed with more help given to potential investigative options, however it is appreciated that the model is designed for those already in a position of knowledge.

The SARA mode (College of Policing 2021)l is probably the most well-known of policing comprising of four broad stages:

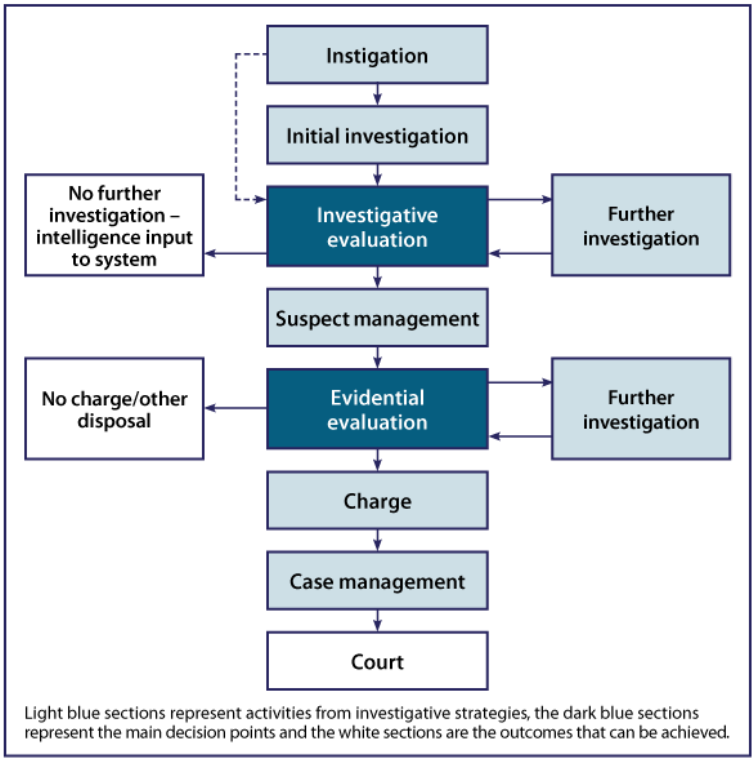
- Scanning: identify and prioritise problems;
- Analysis: gather information and intelligence to identify underlying causes of the problem:
- Response: tailored activities designed to address the causes of the problem; and
- Assessment: measure if the response had the desired effect – make.

Unlike the logic model, SARA is designed to a be a cyclical continual process to be effective allowing users to modify responses as often as is needed. In the constantly changing world of organised crime investigation, a cyclical model is more advantageous as it allows a user to better measure how a situation has changed as and when new intelligence appears. One issue with these sorts of models is the danger of over complicating a situation with a model for the sake of employing a model, when the initiative of a trained officer or analyst completes a similar process but without mapping and describing it in an eloquent sequence.

As the name suggests, the national decision making model (below) is the offical police process for making decisions, according to the College of Policing (2018) it is “suitable for all decisions and should be used by everyone in policing”.

The College of Policing argues that the NDM can be applied to both operational and non-operational situations. I think the generic nature of the model is both its great strength and great weakness. On the one hand, each of the sections can apply as easily to a road traffic collision as they can an OCG trafficking drugs, but on the other hand the intricacies of each particular style of investigation cannot possibly be taken into account in such a sweeping methodology. Overall, an overview of the expected process can only be a positive. Alongside this, The UNODC National Intelligence Model is essentially the collation of all the strategic analysis techniques that are available in the APP on the

College of Policing website (2018). This model is not to be confused with the model of the same name developed by the forerunner to the National Crime Agency the National Criminal Intelligence Service (Police ICT Company 2018) which provides a framework to make strategical and tactical decisions across policing. Based on the author's own experience within policing, the main issue with the APP (as a whole not just a specific area) is awareness. Speaking at the Police Foundation conference (2018) College of Policing CEO Mike Cunningham admitted the organisation had an accessibility issue: officers and staff just don't realise what the College of Policing is doing. Given that one of the main expected benefits arising from this research will be the enhancement of the way OCG investigative strategies are developed, it is worth briefly delving into the current mechanisms used to create them. The College of Policing APP on investigations (2018) includes a useful map (below) outlining the separate stages of an investigation from instigation right through until court. Conversations with senior police officers have indicated that the theories outlined in this research could be of benefit during the investigative evaluation phase.



Light blue sections represent activities from investigative strategies, the dark blue sections represent the main decision points and the white sections are the outcomes that can be achieved.

The APP identifies the two main types of investigation: reactive, those based on an action by others, and proactive, based on assessment of existing intelligence package. The research is applicable to both stands, however cases with existing intelligence packages have been prioritized as this will be both more realistic and less labour intensive. It outlines the purposes of an investigative strategy, and clarified some ambiguous terminology surrounding multiple strategies making up an overarching investigative plan:

- Identify the most appropriate line(s) of enquiry to pursue;
- Identify the investigative action(s) necessary to efficiently achieve the objectives, taking into Account resources, priorities, necessity and proportionality;
- Direct and conduct investigative actions to gather the maximum amount of material which may generate further lines of enquiry; and

- Understand and manage community impact.

Examples of specific strategies relevant to the broader research concept, include communications strategy, covert policing strategy, intelligence strategy and arrest strategy Taken together these documents (which often are not formal and can be as little as few lines scribbled in a notebook depending on the scale of the investigation) form a cohesive plan. The challenge is that in order to determine the best insertion point for the analysis concept that is central to this research, a balance must be sought between the appraisal of existing strategies gleaned through access to police documents and conversations with detectives to determine the operational, rather than the theoretical, reality, this must then be married with a consideration of how the insight should be presented.

Europol OCG indicators and OCG tiers

Europol - the EU's criminal intelligence collation and cooperation agency (Europol 2020) - use a series of indicators to rank OCGs. These were developed independently of the research contained within thesis as the author only became aware of them following conversations with the Europol Head of Intelligence Analysis at a conference in June 2019 (Policing strategy forum 2019), however the similarities between the U BATTLE and Europol models, despite their independent beginnings, only serves to underline the accuracy of the research concept as a whole. These factors (Europol 2019 have been developed to assess the risk and threat posed by an OCG. The full indicators and their relevance to the U BATTLE toolkit and its development process can be viewed in appendix 2. Out of the 15 factors Europol identified, 12 of these had been covered in some sense in the U BATTLE toolkit, the remaining 3- Size of the group, structure and geographical dimension- have been fed into the model as have the low, medium and high-risk criteria where applicable.

A document from Nottinghamshire Police and Crime Panel meeting (Nottinghamshire PCP 2015) in 2015, goes into detail (rightly or wrongly given this is the only public example of this data), surrounding the four tiers of OCG Investigation. They are briefly summarised below

- Tier 1 – "Operational or Investigative Intervention" Is the OCG being formally investigated? If there is a proactive/reactive investigation into the OCG, and an LRO has set an investigative management plan.
- Tier 2 – "Limited Plan or Action that Prevents or Disrupts" Is there any activity or response planned to prevent the OCG from operating or disrupt criminality?
- Tier 3 – "Proactive Intelligence Development" Proactive collection and gathering of intelligence. Do we know enough about the OCG to consider any action?
- Tier 4 – "Developing Opportunities for Action" OCGs allocated a Tier 4 response remain mapped, but there is no current intelligence development or planned response to the OCG

It is envisioned U BATTLE could be useful within tiers 1-3, as an aid to developing a proactive/reactive investigation management plan and as an aid to an intelligence development plan.

The extent to which law enforcement are currently using business analysis related methods to tackle organised crime and intelligence issues

Crime script analysis (College of Policing 2019) is a highly useful type of analysis that breaks down information into logical steps in an organised sequence. It surmises that, when committing a crime, there are often four stages that the criminal will go through in order to carry out the offence:

- Preparation – the offender identifies the opportunity in which they can commit their crime;
- Pre-activity – the logistical or transactional precursors that may need to occur (e.g., reconnaissance at the location to be targeted);
- Activity – how they are actually going to commit the offence;
- Post-activity – the logistical or transactional steps required in order to leave the scene (e.g., having a getaway driver waiting, engine running).

Script analysis is useful when data is limited as it helps provide a greater understanding of the problem and can help identify opportunities for preventing and detecting crimes. Crime script analysis follows a process similar to an analytic technique formerly defined as the 'criminal business profile' or 'criminal business analyses. This actually forms more of an intelligence product, where the specific aim is to determine how a criminal group or enterprise operates. Crime scripting would allow a criminal group to be envisaged in a manner similar to a business, with the analyst determining how they source their commodity, how they process it, how they distribute it and how they disseminate the profits, for example. Both ironically and positively, feedback from a presentation the author made the NAWG on this research indicated, I had created an improved version of the criminal business profile despite not being aware of its existence.

There are many aspects of current approaches to organised crime which call on very sophisticated techniques, for example in terms of interception of communications and cyberspace monitoring. Attempts to piece together or even capture intelligence which would establish a suitable basis for undertaking analysis of OCG business capabilities are relatively underdeveloped. Some existing tools do exist that a capable of conducting a broadly similar form of scrutiny such as market analysis (used to monitor activity, trends and understand the market) and subject analysis (used to build a subject profile) (College of Policing 2018). However, these tools are suitable for building a general picture. A key point from my research is that while numerous organisations, such as the College of Policing (2013) United Nations Office on Drugs and Crime (2010) and the US Central Intelligence Agency (2009) have published documents outlining potential uses of some techniques in some criminal investigations. I have established that, given, the now widely supported view that OCGs are mimicking legitimate business practices in their operation, there has been no through examination of the extent of the applicability of those business analysis techniques on the criminal elements which are most similar in operation and structure to the legitimate enterprises that the techniques were originally developed for use on.

One useful tool is criminal business analysis (College of Policing 2018). This is a process that shows the various activities required to achieve a specific criminal aim. It then identifies the logical order of these activities and their interdependency. This interdependency element makes it ideally for investigating poly criminal OCGs. Other techniques covered on the College site include, key assumptions check, analysis of competing hypothesis, team a/team b structured debate, force field

analysis, SWOT analysis, cone of plausibility, back-casting, structured brainstorming, and issue re-definition. The only technique with any more detail than it's simply its name is SWOT analysis, which outlines my previous point about a lack of law enforcement coverage in this area. Some techniques such as force field analysis and the cone of plausibility will be analysed in greater deal in another section. Criminal business analysis, criminal market analysis, and subject analysis, alongside network analysis are the only analytical techniques, in the eyes of the College of Policing, meriting a detailed explanation, it is hoped that findings from this thesis will result in some new guidance being produced and this area of analysis being given more coverage.

The Police Online Knowledge Area (POLKA) is another area worth a mention at this point, the idea behind it, which is to provide a secure platform for law enforcement, is a worthy concept certainly, but a combination of clunky design and an awkward access process, means it is not used as often as it should be by law enforcement, in 2020 it was replaced by a similar service called the Knowledge Hub.

Work by Murray (EMCDDA) 2016, a senior forensic accountant with Police Scotland and creator of Project Jackal the only other initiative that is also using the concept of organised crime mimicking legitimate business as its central plank and bringing that knowledge back into an operational context. Murray provides a UK example of the extent of the issue centred on the monopolising of the tendering process for the patient travel service to hospitals in a certain area of the country. The tendering process had essentially been carved up by applicants connected, again by repute as well as intelligence, to two OCG groups, both of whom produced three or four applications in order to provide the process with the semblance of open competition. In this instance there was no interest from potential 'unconnected' competitors. This case is a perfect example of organised crime collusion, and while the extent and nature of the cooperation would certainly mean this would be illegal under competition laws, should legitimate enterprises attempt this. The idea of organised crime cooperating with competitors to maximise profits after scoping out an opportunity, does draw parallels with how businesses act. The sophistication at play here is also important, in order to achieve this each OCG must have the resources to find a person with the relevant skillset to write business cases that meet the required standard and either corrupt them or have the infrastructure set up (i.e. company emails, offices and payment structures) to act like a legitimate enterprise to do this on multiple occasions and to collaborate with another entity to ensure the bids do not clash. The fact that the OCGs met these requirements gives strength to this paper's central argument.

Murray's work (2016, 2017, 2018), is essentially the creation of a theoretical framework to "address the impact of organised crime use of business structures", from this a practical tool for analysts has been developed and deployed in a number of real-life cases across Scotland. He argues (2016), that to explore accurately how OCGs operate as a business legality should be set aside, and it must be noted that, like legitimate business they have three main aims: how to be successful; how to be profitable; and how to survive. Making profit is the OCG goal. However, there is no restriction on OCGs as to how they do this; there is no rule that says they must only use criminal means to achieve their economic objectives. The ways in which profit making by OCGs involves use of legitimate businesses is therefore a necessary part of the analysis in order to arrive at a full understanding of OCG distinctive capabilities. Writing in the *Journal of Financial Crime* (2017) Murray makes a systematic assessment of the threat organised crime actually entails, outside of the NCA and Home Office reports that do just that on an annual basis. He argues that organised crime "constitutes a series of processes that enable enrichment from criminal activities. These processes exist, are populated by a series of legitimate and illegitimate enablers, and the ways in which the relevant interfaces interact between legitimate and illegitimate spheres offer points of vulnerability". This is a

totally different standpoint than all other definitions of organised criminality and it benefits from Murray's expertise as a forensic accountant and his non-criminological approach.

Jackal was launched in June 2014 (Murray Interview (2020), primarily as a means to encourage the capture of intelligence relating to OCG businesses and finances. A toolkit was designed based around simple questions designed to encourage relevant police personnel to develop an awareness of these factors and record the intelligence that improved awareness in intelligence logs. The impact on organised crime of improving understanding of business structures will hinge upon developing workable methods for using that intelligence in ways that tell valuable things about organised crime that can translate into tangible results in terms of convictions, disruptions, and asset recoveries. The basis used for the transition from a raw collection of business oriented intelligence to an effective analysis of the strengths and weaknesses of an organised crime group or network is a matrix arrangement adapted from that developed by Ostervalder and Pigneur in their manual for generating business models, '*Business Model Generation'*

> Such a model offers possibilities of developing a language that can be shared across the many platforms in terms of agencies, nationalities, and territories relevant to the realities of organised crime business. It can in short be applied to any situation, any collection of organised crime groups forming a network, any organised crime process that constitutes a profit stream. Whatever the local differences or variations in custom and method such a model will be able to accommodate them in the field of organised crime, just as the original conception of the model by Ostervalder and Pigneur was designed to accommodate any kind of legitimate business. The essence of what JACKAL does is to take on board all relevant sources of intelligence, and all relevant open-source information, and analyse it in such a way that we can determine the key distinctive capabilities that relate to the OCG. Then, on the basis of this understanding, we can identify vulnerabilities that can be exploited through the generating of law enforcement actions. The challenge is to translate a conceptual framework based on business strategy analysis to a practical programme capable of being absorbed into practical models of policing and deliver tangible results.

Murray ends with a conclusion stunningly prescient of my views "a modern law enforcement operation cannot meet the challenges of organised crime without a willingness and ability to develop an understanding of organised crime as a business." The matrix can initially be used as a sorting box for relevant intelligence and analysed in terms of the principal characteristics associated with each box heading. For example, in respect of a straightforward drug trafficking process involving an OCG, the partners required to establish the business are in the far left box under Key Partners; the key activities of the group such as import and distribution are under Key Activities; and the supply sources of the drugs are under Key Resources. On the right hand side, the methods used to exercise discipline and maintain market share are grouped under Customer Relations; the warehousing and distribution networks accessed and used to generate the relevant sales revenues are grouped under Customer Channels; and the various end markets served are grouped under Customer Segments.

The box that requires a degree of analytical thought is VP (Value Proposition). The challenge here is to bring together the information contained within the matrix in such a way that explains one basic thing: why is this group/network/process profitable.

Distinctive capabilities that can be grouped under the following three headings:

- ***Architecture*** – the network of 'relational contracts' within, or around, the OCG. These relationships are with their suppliers and customers or with other OCGs engaged in related activities. The concept can also be used to cover the internal architecture of OCGs in terms of how they manage membership and internal influence.

- ***Reputation –*** For OCGs this can be regarded as the key mechanism for conveying information to customers, suppliers and competitors. Making, building and exploiting reputation is a core activity for OCGs. Losing it is the most obvious and most worrisome business risk.

- ***Innovation –*** This capability is linked to those of architecture and reputation. The ability to be flexible and nimble, to be able to respond effectively to changing circumstances, to be able to survive significant setbacks such as law enforcement disruption, requires not just the maintenance of the capabilities of architecture and reputation that exist, but the ability to exploit those capabilities in ways that enable access to new markets, new products and new ways of doing things; and also to be able to exploit these capabilities through the renewed force of reputation.

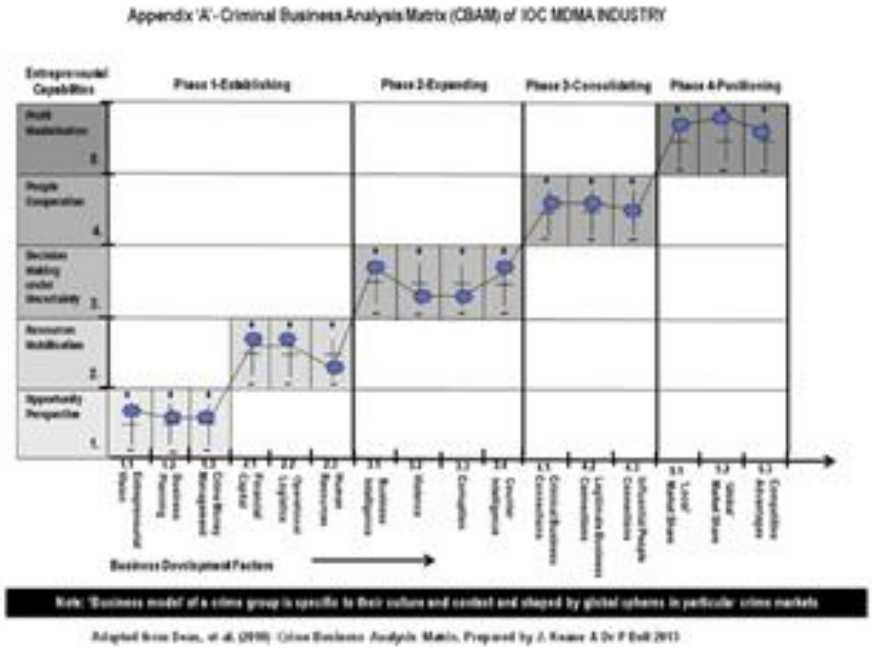
The field other than Jackal:

The evidence of my literature review indicates that there has been no attempt to divide these techniques into sub sections based on their applicability to a certain criminal element, nor has there been an attempt to create gains in the way investigative strategies are developed by using these techniques and applying them to intelligence data. A text by the International institute of Business Analysis, titled *Guide to the Business Analysis Body of Knowledge (*2006), indirectly, illustrates that only a portion of business analysis techniques are suitable for application to an OCG. This is because that, while there is a large body of evidence that notes the similarities between the operation of legitimate and illegitimate enterprise, by dint of the illicit nature of their products and the corresponding lack of regulation that accompanies this, OCGs need not concern themselves with some elements that legitimate enterprises have to contend with, such as Human Resources, legal or ethical constraints, invoicing and huge chunks of a the administration and bureaucracy that characterises a normal business. As a result of this, techniques that concern themselves with these areas have been omitted during the preliminary research stage.

The Criminal Business Analysis Matrix

The Crime Business Analysis Matrix CBAM, is probably the most useful tool already in the policing arena. Keane and Bell (2013) researchers from Queensland University of Technology have applied a CBAM to an Israeli OCG dealing in MDMA (the key chemical in Ecstasy, the US and European market for which has been historically monopolised by OCGs from this region). Given the significant geographical distance between Israel and Australia and the secretive reputation of Israeli law enforcement (New Statesman 2018) the reasoning why this particular country was chosen is unclear. However, the specific methodologies appear very relevant to the research concept. The CBAM assesses existing data on an OCG and splits it into 13 categories (entrepreneurial, business planning, crime money management, resources mobilisation, financial capital, operational logistics, human resources, decision making in uncertainty, business intelligence, legitimate business connections, crime business connections, local/ global market share and competitive advantage) they then

produce brief summaries and rate each sector as high medium or low. Should you wish, the brief summaries could then be presented to the senior investigating officer along with additional investigative insights to be included in strategy and plan development.



The concept of CBAM appears very relevant, particularly the way it breaks down the requirements of organised criminality and allows their vulnerabilities and strengths to be easily mapped and so reverse engineered. However, it's use in a policing context can only be determined in a limited manner when discussed in an open academic forum., This is because to gain access to the data for academic purposes personal and other identifying information would have been sanitised which means that vital information that could form a part of an assessment of the OCGs business may well have been excluded, if, and when, this is done in a policing environment the results are likely to be even more beneficial than shown here as this sanitisation process would not be required. CBAM is very much an overview rather than a deep dive tool and could go deeper with access to intelligence data. However, this is a judgement on the data rather than the technique; realistically the technique of analysis can only be as good as the data it is analysed on.

Research by Mexican scholars Diaz De Leon and Ochoa (2014), published in the International Journal of Asian Social Science also uses the CBAM, this time in the case of the Knights Templar organisation based in the state of Michoacán. This research has one key advantage over the previously mentioned Australian led CBAM research in that because the data and academics are based in a close locality the quality of the data is likely to be higher. However, conversely, given the reputation of Mexican OCGs for murdering those who began to show interest in their criminal enterprises (Grillo 2013), there is a case for the distance between the two countries acting as a positive factor. In addition, Sanderson et al (2014), Griffiths University in Queensland Australia, have also applied CBAM to the Montreal Chapter of the Hells Angels Motorcycle club. Given the incredibly niche nature of this research, and the lack of scholarly and policing research into the specificity of using legitimate business analysis techniques to enhance intelligence around OCGs, the fact that three teams of respected academics, all within a year of each other, have all used CBAM, speaks volumes

for its applicability. This follows its origins in a 2010 book by Geoff Dean, Ivor Fahsing and Petter Gottschalk) *Organized Crime: Policing Illegal Business Entrepreneurialism*.

Intelligence related issues

Borek (2019:813), a government intelligence analyst with 30 years' experience which and now an academic at Grand Canyon University, Arizona makes a highly relevant point surrounding how intelligence is perceived and how different facets of information come together to enhance the overall picture:

> It's funny because when people talk about intelligence, and it's like this super-secret information, and it's got to be better than everyone else's information, but actually it's just one more piece in a mosaic of Information that you have to consider. Past information has its place, academic information has its place, intelligence information has its place, but no source of information is enough by itself.

He goes on to argue that because of its perceived enhanced authenticity, information that is classified or restricted is given "A little too much weight because you can't actually check it against anything, therefore it is very difficult to be critical of something that you almost can't fact check". He also notes that often analytical certainty and process is overwritten by the organisational need for efficiency, which can have a negative impact on the veracity of the analysis: "How do you know when you have enough? Obviously, you have enough when the Ops guy needs the plan done." The research contained in this thesis are particularly vulnerable to this Boreksian viewpoint, because they are designed to be used in an operational context, which as we know can impose constraints on the time available for analysis.

James et al (2017:79) quotes several scholars who argue that intelligence gathering is seen by some officers as "ancillary to the 'real' business of policing. where intelligence staffs' enthusiasm for collecting and managing data to help make sense of the world was not matched by others in the operational world". He goes on to succinctly frame one of the key questions around the use and effectiveness of intelligence "need to know and dare to share", in a separate interview with the author (2020) he provided an example of the consequences of the occupational culture of working in intelligence silos.

> Following the Brinks Matt robbery police received intelligence that the stolen gold was being melted down- requiring specialist smelting equipment. A local officer in Bristol knew John Palmer had recently acquired one, but because it was a national led investigation, the information was slow to percolate as no one had asked the local force.

In essence, the paradox is that to have value sensitive intelligence must only be shown to those with whom it is a necessity, however keeping intelligence in silos means knowledge accrued by different agencies or units is never pooled and therefore the overall picture risks remaining fragmented. In the context of this research this is highly relevant because the more information the analyst has to hand about an OCG, the more impactful the questions that are the staple result of the research questions in this thesis are.

Bruce (2008:7) writing in a book published by the International Association of Crime Analysts, makes an important point regarding the context of the research when he argues that "In any business, in any industry, in any part of the world, the right information is absolutely priceless" and that

“information is the most valuable commodity in the world”. This speaks volumes surrounding the vitality of ensuring the collection of intelligence, on which this analysis is based, is as accurate and in depth as possible. The better the information collected, the more informed the analysis and consequently the investigative strategy can be. Furthermore, an analysis by the Global Initiative against Transnational Organised Crime (2016:3) introduces a method called Political Economy Analysis which looks at the criminal market or supply chain in a specific locality, mapping the entities involved and their interests. However, while this sounds innovative a closer inspection reveals this is essentially criminal business analysis and market profile (already used within policing) by another name and harks back to a previously stated issues of there being a total lack of standardisation in terms of how the models are referred to.

Devanny Et al (2018:88) writing in the RUSI Journal, put a new spin on an age old problem within both the UK intelligence and policing communities, which is that as government organisations grow in number and complexity and are amended and restructured according to the policies of the government of the day fractures and silos begin to develop as individual elements vie for control of the power and prestige that has been appointed to their department or organisation. The result of this is a lack of communications which fosters duplication and inhibits progress.

> There are already several different initiatives within the British intelligence community to improve analytical tradecraft in the face of changing demands for analytic products. There is effectively no quality control or a centrally coordinated process of benchmarking and diffusion of best practice. Efforts are currently scattered and the sources of outside accreditation and standards are dispersed between different organisations, even though the professions are increasingly linked. Put simply, there is as yet no coherent strategic view regarding the future of the profession.

This analysis tallies with the author’s own experiences in this area. there is no one course or company accredited to deliver intelligence analysis qualifications, on a national basis, and this means each force decided individually which course to send its analysts on- which consequently means a lack of uniform standards in such a vital profession. If a coordinated effort could be made between organisations to agree on the requirements of such a course and ensure that every analyst then attends, then ironically that the profession that pulls together information around the strategic issues in their own areas would itself have some form of strategic output to regulate and improve itself and its members.

The 2017 (p38) Office for Security Cooperation in Europe guidebook on intelligence led policing, highlights an earlier point about there being a myriad of expressions of analysis classifications, “Operational analysis in one organization is called tactical analysis in another, and network analysis in one police department is called link analysis or link-charting in the neighbouring country”. With 43 different forces meaning 43 different ways of doing things, this is an internal problem in the UK too. Another form of criminal intelligence analysis used by police is link analysis (UNODC 201). As the name suggests, it orders information surrounding relationships between people, crimes, events and entities into a chart or graph format that allows the intricacies of the criminal operation to be fully explored. It can be used in software such as IBM analysts Notebook, for example.

A Home Office study (2016), assessing the use of intelligence data over crime logs to conduct a social network analysis (broadly similar to a link analysis) and improve knowledge of a particular gang, was particularly useful. The study concluded that there were both benefits and disadvantages to using intelligence data, with the former being increased knowledge of non-criminal links, which can aid operational planning activity, and the latter being that accuracy of police intelligence data is

uncertain. For example, a lack of intelligence does not mean they are not important to the network. Of further relevance is an article by the Global Initiative against Transnational Organised Crime (2016;5), a think tank dedicated to ensuring worldwide cooperation against organised crime. The article also identifies that timing, as well as strategic intelligence, is a key requirement for programming on organised crime: "Not all interventions make sense all the time and occasionally strategic opportunities present themselves which can be seized". Indirectly, a detailed real-time mapping of an OCG's business can identify the best points of intervention (i.e. when a particular shipment of drugs is due) can aid with this.

A thesis by Thi Li (2013), examining the structure of trafficking groups within Australia, explains the idea of crime script analysis. This essentially puts the investigator in the mind of the criminal and then allows them to determine the resources needed to complete every stage of a single crime. This tool is incredibly useful, though it does rely on the investigator having specific inside knowledge of wide variety of crime types, which is not the same as having an inside knowledge of how those same crime types are investigated.

Colin Atkinson, an academic at University of Western Scotland and formerly a Counter Terrorism analyst with Police Scotland, presented his research on the current approach to CHIS coverage strategies in Scotland and the issues surrounding the use of intelligence analysts in this area, at a NPCC IPRC meeting in October 2019. In his article, *Mind the Grass,* he quotes the distinguished Temple University Scholar and creator of intelligence led policing, Jerry Ratcliffe. Ratcliffe argues that attempts to integrate the 'old knowledge' of cops and the 'new knowledge' of analysts in intelligence-led policing the power of the culture of police officers has the potential to marginalise the intelligence analyst and their function My own experience within UK policing adheres to that assessment. Anecdotal evidence I have obtained suggests that within the NCA in particular they are struggling to recruit and retain analysts, resulting in current resourcing and recruitment challenges of analysts. This reduction in the number of analysts, compounded with budget cuts means that having a dedicated analyst on an OCG case is the exception, rather than the norm. Furthermore, any analyst deployment is subject to the political manoeuvrings of any large organisation. We can also approach this from a more theoretical viewpoint using Radcliffe's 3I model. The 3Is are: influence decision making, interpret and impact the criminal environment. Radcliffe's model (College of Policing 2018) provides useful direction in terms of the ultimate aims of the toolkit that will emerge from this project specifically and this area of analysis in general. Atkinson also notes that the assessment of an OCGs vulnerabilities in relation to potential CHIS mapping strategy has been:

> Patchy at best; varying between agencies, and with some business areas developing an informant-focussed analytical capability at a faster rate than others". He further argues that "If analysis, and intelligence analysts, are to make a valuable and sustainable contribution to the understanding of informant coverage in policing and law enforcement then proactive leadership will be required for its consistent implementation, ongoing support, and future success."

The proactive approach cited is a worthy one. However, given the current funding issues within policing as a whole, and the fact that CHIS is a niche area within an already specialised area of policing, the fight for support and recognition could be lengthy. Moreover, Atkinson's stated risk of atrophy in this area if this action is not taken, with the potentially significant impact this could have on the fight against organised crime, if it is not heeded, is probable.

Atkinson's fully *Informed* article (2019) goes into detail surrounding his proposed methodology to formalise a CHIS insertion strategy based on analytical measures rather than hunches. One particular

challenge in this area of policing is that you can have all the analytical capability in the world to determine the precise location within the OCG that would be optimum for placement, and the specific information you wish to obtain, but the nature of a CHIS is that they, and they alone, are in the position to obtain the required result. He says despite the emerging role in intelligence analysis in police informant work, he tacitly acknowledges that for a long period of time this was an officer's only domain. He states that "civilian intelligence analysts have lacked a commonly shared, well-recognised, rigorous and robust methodology to underpin their everyday practice." Further conversation with Dr Atkinson over email and via phone has determined that there is a potential conflation with his theory and theory outlined within this research to determine a theoretical framework for optimum CHIS insertion points. Work surrounding this is still very much in the elementary phase and will likely need a separate project in order to come into fruition.

Strategies to deal with organised crime

Writing in 1970 in a journal article Smith and Salerno examine the use of strategies organised control, predating the majority of other material on the subject, they (Smith and Salerno :108) argue that "more attention must be given to anticipating the countermove in the development of any specific action strategy", given the recent honeypot operation by the Australian Police and FBI, which involved the setting up of a new encrypted chat company targeting the users that evaded the clutches of law enforcement following the takedown of the encrochat network, you could argue that here law enforcement has begun to learn its lesson. They also (Smith and Salerno:110) talk about aiming to "achieve a system that can predict accurately the moves of organised crime in advance, it would then be possible to take preventative action, which as Levi and Maguire note almost 35 years later, is still not the case. Furthermore, they (Smith and Salerno:110) offer a view on the parameters of said strategy, noting that in order to be successful there must be "emphasis on sophisticated planning for development of resources, based upon a broad understanding of the intentions and capabilities of the adversary. He is organized, dynamic, and self-perpetuating; in response, our government strategies must be flexible, sustained and grounded in effective intelligence operations. "just thinking" can substantially increase the productivity of an entire agency." This concept of understanding the dynamics of your competitor is the underlying reason for the creation of business analysis techniques and the transplantation of that core concept here strongly supports this thesis' core research premise.

Similarly, Levi and Maguire (2004: 451) note that much law enforcement activity isn't strategic- in the sense that it doesn't dovetail into a wider overarching plan and is often focused on arrests and seizures, rather than the root causes of the issues,- and that as a result the impact of any singular law enforcement operation on overall scale of organised criminality is minimal. They note (Levi and Maguire:453) "In short, impact on criminal organizations, the organization of crime, and on illegal product availability can be modest even from the most elaborate and expensive, multinational, inter-agency collaboration" this is supported by the simple fact that these entities continue to operate at national and international level despite law enforcement efforts (NCA 2021, Home Office 2018). In terms of overall strategy against organised crime the authors note a response from the EU High Level Conference on Crime Prevention in Lisbon from May 2000 which concluded " best approach is to develop a crime prevention policy that is both repressive and preventive, involving closer co-operation and the exchange of experiences and good practices . . . the effectiveness of these initiatives needs to be systematically evaluated. This 'What works' approach, has been at the forefront of College of Policing policy since its inception in 2012 (College of Policing 2020). They also argue (458)- though they don't draw the direct comparison- that there are organisational and operational similarities between strategies of illegitimate and legitimate enterprise. By definition, organized crimes are greater than the sum of their individual crime elements. They are continuing

activities, they are planned, and 'the organization' (large or small) is prepared to defend, react and adapt to ensure the continuity of their criminal enterprises" and that we must not be seduced by the Godfather approach which (458) " make it too easy to avoid thinking about what it means to fight 'networks' "

The concept of organised crime and its associated definitions- such as gangs, networks, OCGs and OCNs affects the police definitions of the threat and by extension the construction of the nature of it, the above were explored in the introduction and in the methodology section. While they are important in delving into the micro level of OCG operation, ie how different OCGs have different Modus operandi, on a macro level when we consider the theory that all OCGs operate on a similar plane to legitimate businesses- the ultimate aim being profit- the choice of terminology used to describe them becomes less relevant.

Networks are groups of interconnected people or things, it is that interconnectivity that Levi and Maguire note that means simply targeting the head of an organisation, as they do in the Godfather is not an effective use resource. In a 2016 article (2016A:150) Sergi applies the principles of organisational ecology to organised crime study, analysing strategies to counter the Australian branches of the 'Ndrangheta arguing that "instead of purely targeting the identity of associations, it is more efficient to examine their behaviours as enterprises as well as cultural elements. She cites the US RICO (Racketeer influence and Corrupt Organisations Act) and Italy's Mafia Association laws as effective examples, of dismantling the organisation as whole in order to provide a long term solution.

Sergi (2020:1533) a key scholar in this area, argues that we must be wary of sensationalism, of creating a 'new monster', when categorising organised crime and that it is important our perceptions are based in reality when those perceptions are then used to develop strategies to dismantle the entities involved. she argues that "Giving 'agency' to criminal organizations, "as if they were unified and rational entities ,strategically detached from the environments they live in, allows to identify them as 'enemies' and misses the point of their criminality overall, that they operate within their own social environments.". Her point around the risk of essentially enhancing an OCGs standing through our own classification of them, is highly relevant and, as she mentions it is important to note that these illegitimate enterprises often play an important social role, which is distinct from those undertaken by legitimate businesses.

A 2014 report commissioned by the Department for International Development entertains the idea that organised crime could be eradicated completely through controlling the supply of illicit goods, which as a concept is a worthy one, but one that given perhaps the implausibility of this is the only point on which organised crime scholars almost universally agree on, we can say with reasonable confidence that this will not happen. The report then attends to more realistic grounds, arguing deterrence theory could supress demand significantly. This is based on the dual assumption that the supply of illicit goods is limited to create price rise and at the same time sentences are increased, this will create enough of a deterrent to reduce the levels of crime. However, the majority of the available evidence does not appear to support this assumption, as the higher the price an OCG can charge for its commodity the more profit it makes, and therefore the less it needs to sell to make the same amount of profit as in previous years. From a UK perspective, in the case of drugs, because politicians are loathe to consider any form of legalisation process, by default the government are locked into a deterrent cycle. Unfortunately, there are such profits to be made on drugs that, no matter the sentence length, people will always want to import drugs. Ultimately, while the idea of deterrence may be a sub optimum way of tackling criminality, it remains, and it would appear that it

will remain for quite some time by dint of government action, the only viable option, therefore it is justifiable in dedicating this paper to it. In essence this is saying that organized crime has developed to become an issue beyond the competence of conventional policing. Yet so long as local police forces bear some responsibility for dealing with organised crime, the UK response will be based on trying to adapt a policing infrastructure intended for other policing functions rather than dealing with the problem of organized crime itself.

Harfield (2008) argues the organization of organized crime policing suffers a number of weaknesses: significant differences in capacity and capability between jurisdictions; different and indifferent attitudes towards treaty negotiation, ratification, and implementation; different attitudes and agenda in relation to mutual legal assistance and international law enforcement co-operation. Essentially, he is suggesting, as the author does, that while organised crime is transnational, seamlessly crossing borders, jurisdictions and boundaries, policing is not and as its need to follow procedure and regulation inhibits its ability to tackle criminality who have no need to play by their rules. Furthermore, in an article published two years later Harfield (2010) argues undertaking transnational investigations which include covert investigation tactics inevitably complicates an already complex arena. With transnational criminal investigation increasing in frequency, both the accused and the investigator are disadvantaged by the absence of a supportive governance framework. Moreover, there is consequentially an increased onus on investigation managers to get it right in a context where lack of familiarity and specific training in foreign procedural laws increases investigator (and therefore investigation) vulnerability. This ties in with his earlier assessments that criminals are nimbler than law enforcement at navigating international structures. In this case it is a police lack of au-fait with those laws outside of their own jurisdiction. Ultimately, this is not something criminals knowingly exploit, but nevertheless an area where police are, to use a footballing analogy, handing the advantage to the opposition. While it is not in the scope of this research to alter the issues behind this, an increased understanding of how transnational organised crime operates, utilising business-oriented vulnerabilities, can only improve the situation.

Harfield (2008) Organized crime challenges long-held paradigms about policing delivery infrastructure and whether law enforcement (as opposed to other policing and regulatory interventions) is the most effective way of dealing with organized crime. Indeed, perceptions of organized crime have changed and it is now viewed in terms of preventing harm caused, rather than criminality automatically to be prosecuted.

Pascual (2017:5) argues that strategies and tools to neutralize transnational organised criminal activity should be a priority for government and that such a tool should “not only describe what the current situation regarding the phenomenon is, but also define the viable alternatives to redirect the situation in a way that can lead to its eradication and control”. Even removing the obvious bias factor that someone developing a tool to neutralise organised crime would be in favour of an argument that highlights a need for it. The former point is logical as it is important that law enforcement have the best capabilities to deal with a threat of this calibre, the latter point also strikes a chord for similar reasons. As this research has shown, techniques designed to assess OCG operational vulnerabilities and aid in the design of strategies to disrupt or disengage a group are rather thin on the ground.

Bringing strands together: Automation potential and, ‘solving organised crime’

Artificial Intelligence has long been heralded as the future of policing (Hisham 2019) and given the innovative nature of the research, alongside the increasingly digital nature of crime (ONS 2020), it makes sense to briefly consider the core research concepts in this context. A report by the think tank

RUSI (2018:8) *Machine Learning algorithms and police decision making*, discovered a whole range of potential pitfalls that need to be addressed before AI can be fully introduced within policing, chiefly they outlined that because this area is in its infancy there is a lack of research examining how the use of an algorithm influences officers' decision-making in practice and a "limited evidence base on the extent to which they serve valid policing aims". Translated, this essentially means that 'we're not sure if it's actually useful yet': not exactly an enthralling conclusion. It also notes that a machine learning algorithm is not simply 'plug in and play', it requires close monitoring in order to avoid any unintentional bias. As yet, officers do not have the skillset to enable them to utilise this tool efficiently, given that the rolling out of tablets and smartphones for the frontline officers is a decision for individual chief constables this means there is a far from consistent picture nationally (Suffolk Police 2017). In terms of direct applicability to this research, the essential question is whether it is possible to teach a machine to conduct an analysis of a business like a human would. The short answer is not in the foreseeable future, and not without an exorbitant amount of resource and expense. As a comparison the team who taught a computer named AlphaGo to play the Korean board game GO to a standard high enough to beat one of the top players in the world, had a team of 20 and the financial clout of Google (Scientific American 2016).

Even if we assume that the creation is possible, given the complexities for maintaining the algorithm and the issues surrounding the legality of such a tool means the more sensible option is to train a network of individuals to carry out the analysis and build the operational knowledge. A conversation around the hypothetical possibility of using a machine learning algorithm to apply these techniques to intelligence data at a speed much greater than a human analyst, was positive but not wholly so. Alexander Babuta, senior fellow of national security and resilience at security and defence think tank the Royal United Services Institute (RUSI), said: "the short answer would be yes. You can apply machine learning to anything as long as you have a statistical model". The additional question, one that he also poses in his report (RUSI 2018), is whether this would add any policing value.

At this early stage of using machine learning in policing, there are still huge questions surrounding reliability and while it may be possible to teach a machine to do a business analysis technique quicker than a human, questions around costs and accuracy may mean, in the short term at least this particular form of analysis is best left for the human brain. A significant amount of research would need to go into this area before a full decision could be made regarding the benefits of utilising machine learning algorithms on the theories outlined in this research.

In a report published in the CIA public library, Fei Yei (2015:6) adds to the debate on the use of artificial intelligence. Her thoughts on its use within her sphere of intelligence analysis within the intelligence community can also be applied to the policing intelligence analyst profession.

> If analysis of developments like missile tests or changes of military force dispositions were automated and quickly communicated with little human involvement delivery of intelligence reports on these developments could be completed and disseminated much more quickly as time on analysis, drafting, editing, and reviewing would be reduced. Why not let robots help in analysis and writing and free up human analysts to engage in the exhaustive research and creative efforts necessary to confront the dangers we face now and will face in the future?.

This is a rather flawed and one-sided viewpoint as, while it clearly highlights the potential efficiency savings that can be brought about through this sort of analysis in the long term, particularly surrounding basic administrative tasks, it ignores the issues surrounding accuracy and maintenance of these algorithms, as well as the moral element of the equation. There is also an issue with the phrasing "let robots help' which in itself is a bias statement as it without disappearing down a

science fiction rabbit warren, it assumes the benignity of artificial intelligence, which as we have not created a fully automated equivalent of a human brain, is not a given, essentially if we create a 'brain' capable of making decisions that have an impact on people in the real world- i.e. whether or not to arrest or put surveillance on someone, then the question becomes how do we regulate those decisions.

Conclusion

In conducting this literature review you can trace the genesis of an idea through in the breadcrumb style famed by Hansel and Gretel. In this particular instance, Narconomics and the Chartered Management Institute are the catalyst for this research. The former outlined the ways in which organised crime operates as a business, and the latter examines how businesses analyse their own and each other's strengths and weaknesses, following this work by Police Scotland and the UNODC in this area provided an important assessment surrounding the position of law enforcement in this emerging field of research. Furthermore, the academic milieu, in particular Lusthaus, Bruce (2008), Borek (2019), Catino (2019), Gottschalk (2009,2010) and Sergi (2016A,2016B,2020) have played an important role through conducting research that slowly pieces together the worlds of business analysis, intelligence analysis and organised criminals as entrepreneurs. As well as academia and policing, work by journalists has also been integral to this research providing in depth picture of organised crime and how it operates in different parts of the world. In particular, work by Johnson (2012,2014), Grillo (2013) and Thompson (2007) all provided pieces of what went on to become an overarching concept. This, mixed with expertise gained from reading around business analysis and change management from authors such as Porter and McKinsey, as well as a knowledge of organised crime operation and criminal investigation strategy taken from both professional experience and extensive research with current professionals active at an operational, tactical and strategic level, has enhanced knowledge and expertise substantially. Specifically, the chapter highlights areas where current research has not yet explored, in particular that both law enforcement and academia stop short of exploring the concept of this thesis but do touch on related areas. Academia has concluded that there are multiple similarities between organised criminals and legitimate businesses, while policing has taken tentative steps to utilise these findings for operational advantage but has not taken used the area of business analysis to do so- which is the unique element of this thesis.

All these factors, when taken together, provide the pieces of the puzzle that this thesis set out to solve. Furthering that analogy, we have now assembled all the pieces. The following chapters outline the process of bringing them together to get the completed picture.

Chapter 3: Methodological approaches

Introduction

This chapter outlines the intricacies and interrelations of the individual elements of the methodology, detailing how each component has a role in establishing the scholarly credentials of my research questions. It also examines several wider contextual questions relevant to the research area. Policing is a result-based business, if an officer or analysts devises a strategy or tactic that has worked in one scenario that may then be written up shared at a conference and is able to be used by others within policing if they feel it is appropriate. Whereas in academia the standard for research to be proved is much higher, hence the development of a multi-faceted methodology to ensure that this research has credence in both policing and academic circles. Due to the author's existing relationship with City of London Police a lot of the traditional challenges faced by academia when developing new exchanges with the police- for example issues with engagement or a lack of trust- simply fell away when the request came from a police email address rather than an academic one. The ethics of engaging in research that was being trialled on live cases had to be carefully considered. The key decision here was to balance out the risk of trying out new research in a live environment with real people against the risk of a lack of progress if the toolkit was not trialled in the environment it would eventually be used in. The risk of the former was mitigated by ensuring that the versions trialled on live cases had bene extensively tested using the other methodologies. In addition like any large organisation policing is not immune from internal politics. The political dynamics of trying to enamour change within policing are also worth a mention, projects within policing can often suffer from the 'doomed to success' mentality ie that because of the view that anything other than an unqualified success is perceived as a failure and because a failure is not viewed favourably by senior officer when discussing promotions officers are reluctant to embark on projects that may not succeed which inhibits the integration of academic research into policing.

How did the narrative change as the research progressed

The main change was the finding that business analysis techniques could not be wholly transposed into an organised crime context. This is because while there are huge symmetries in the way legitimate enterprises and criminals operate- as the literature review argues- adaptations need to be made before the key questions were usable for policing purposes. This necessitated a change in my research plan which had initially been simply to apply these business techniques to organised crime groups and gain insight into their vulnerabilities. The new plan as highlighted below involved the creation of multiple methodological strands into to create a rigorous process to map the adaption of the techniques into an organised crime context. Because this conclusion was reached following the manual application of the original business application techniques to historical case studies IE before the interview, survey and live trial methodologies, the impact on participants was minimal as the questions for the interview and survey were changed before they took place.

Research limitations

While as seen below the feedback from the various methodologies was generally positive, the one exception to this was the blind feedback from SEROCU, the reasons for this negative response will be further analysed in the findings chapter. The decision to include a range of non-police experts in the semi structured interview methodology was made in order to allow those with experience of organised crime in a non-investigative setting to contribute their knowledge. It is often the case that authors, journalists and academics have totally difference experiences that can be utilised to improve the police response, the inclusion of non-police also counteracts any biases in police response. The main limitation of this research is the scope and scale of organised crime combined with the structure of policing from investigation standpoint. Given the purpose of this research is to improve OCG investigative standards through the prism of academic research, the fact that no two OCGs are the same and there is no standard way of investigating organised crime- whereas with murder or financial crime the College of Policing provides Authorised Professional Practice for these areas- means devising a product that is of value to a broad cross section of investigations is a challenge. Furthermore the way research is tested and validated in policing is totally different to the same process within academia.

Existing approaches

Before going forward, it is necessary to take a step back to assess where we are and how we got there. Doing this will enable us to establish the potential benefits of any new or proposed approach. Organised Crime is major problem, regionally, nationally, and globally. It involves a diverse range of actors and activities. These sophisticated groups can have a high impact on both communities and the economy. The continued operation of offenders while imprisoned (through bribery and modern technology), combined with the impact of the vacuum effect of a strategy targeting individuals. When one offender is taken out of the equation, another simply takes their place; this means that to increase effectiveness, law enforcement focus must be moved towards criminal entities as a whole. The current approach and guidance for officers is focused on the offender rather than the market. Presently there are no tools specifically designed to tackle the influence of an illegal entity. This research aims to change this by utilising an approach that focusses on techniques used by legitimate businesses to analyse both themselves and competitors. Business and strategic analytic tools are not new. They have been around in various iterations for decades (BA Times ND). However, their application to policing is fairly new and has been wildly inconsistent; moreover, their application to organised criminal enterprises to develop investigative strategies is, as far as the author is aware, an innovation unique to this research project.

Current use of these tools

During the course of this research, numerous interviews and informal conversations have been conducted with high-ranking police officers and government officials. The results of these conversations have indicated that while over the last decade there have been a small number of publications which have made a cursory examination of the idea, strategic analysis could be applied to an investigation. No one has yet focussed on the specifics of utilising a series of business analysis techniques, bringing them together and examining intelligence data to enhance the development of investigative strategies. By doing this, this project will intend to tackle the impact of organised criminality. To ensure optimum practical benefit, close cooperation has been sought [and received] with law enforcement throughout this project and as well as providing a firm evidence base in an

area where research is lacking, it is hoped this project has developed the basis of a toolkit that will be of use outside academia, in an operational policing sense. Several organisations have delved into aspects of business analysis to combat criminality. These include: the UNODC (2015); The National Police Improvement Agency (2004), the forerunner of the College of Policing; The US Centre for Problem Oriented Policing, which produced a guide to intelligence analysis for problem solvers (2013); and additionally the US Secret Service, which has published a tradecraft primer of structured techniques for improving intelligence analysis (2011). These sources will be examined more deeply in my literature review, where current UK guidance on analysis (Authorised Professional Practice in policing parlance) will also be studied. These sources, in conjunction with the author's role as Research Lead at Project U BATTLE, are a strong indication of the value of this research.

Parameters

In order to deter mission creep, precise parameters must be defined and adhered to. The scope and variance of organised criminality across the UK, and indeed the world is vast with the pernicious tentacles spreading across every conceivable industry resulting in a huge section of criminality falling under this banner. The NCA Strategic Threat Assessment (2019, 2020) notes that Serious and Organised Crime (SOC) affects more UK citizens, more often than any other national security threat, and that SOC is estimated to cost the UK economy at least £37 billion a year. It goes on to state that the dominant motivation for those involved remains financial gain, and that poly criminality remains a key feature of the SOC landscape. Other key points from the annual report, regarded as the premier assessment of Organised Criminality in the UK, are:

- Many OCGs continue to be involved in multiple crime types, adapting their methods to law enforcement responses;

- In the UK there are 4,542 Mapped OCGs at varying levels of criminality, intent, and sophistication, each with a complex ranking mechanism behind them;

- The scale of money laundering- a key element of organised crime- is difficult to assess, but it is considered to be significant. The United Nations Office on Drugs and Crime (UNODC) estimates that between 2 and 5% of global GDP is laundered each year. That's between EUR 715 billion and 1.87 trillion each year; and

- In simplest terms it is taking money that is 'dirty' from criminal proceeds and inputting it into the global financial system and moving it through a number of different banks and companies until it is 'clean' i.e. all trace of criminality has been removed from the money.

Scope of the research

Case studies have been limited to UK groups (or more precisely, groups with a key UK element or with their main base of operations on UK territory). However, as evidenced within the interviews I have conducted, the tool is not limited to groups operating in UK territory and is applicable to sophisticated entities operating both on foreign territories and at a pan national level. The question of whether to include fraud within my definition of organised crime, for academic purposes, was a vexing one. From a purely operational sense, when you take the ultimate aim of the research (and by extension the U BATTLE toolkit), which is to enhance the efficiency of investigations into organised criminal entities, then given the huge range of criminal activities these groups are involved

in and that these crimes do not exist in isolation with each other, it isn't logical or efficient to exclude fraud OCGs from the research.

However, in policing, fraud investigation is often a separate entity to other activities commonly associated with organised crime. In the UK, the City of London Police is the national lead force for fraud (City of London Police 2020) and through that capability hosts the National Fraud Intelligence Bureau, and several operational teams, that through a complex tasking system often take on challenging cases from across the country. Fraud comes under the banner of Economic Crime (a misleading label as ultimately the vast majority of crime is profit driven, and so could be classed as economic). Overall, the National Crime Agency (NCA) has responsibility for policing the most serious and sophisticated OCGs in the UK, they work closely with Regional Organised Crime Units (ROCU) who then liaise with forces on a local level. On balance, given the differences in fraud and 'traditional' organised crime, the argument could be made to exclude the former and focus on the latter when deciding which cases to focus on. However, there are there several reasons why the decision has been made to include fraud. Firstly, it's prevalence. The 2017 Annual Fraud Indicator (National Crime Agency 2017) estimates fraud losses to the UK at around £190 billion every year and the scope and scale of the crime is gargantuan with subsections devoted to almost every conceivable activity (investment, dating, online shopping etc.). It is clear that the damage that is being done by fraud is substantial and it would seem churlish to exclude it because of an arbitrary demarcation, this would also go against the ultimate aim of the research: to improve investigative capabilities.

Secondly, U BATTLE is concerned with the intelligence data outlining the criminal activities themselves, rather than the specific activities, it was initially theorised that specific business analysis techniques can be applied to OCGs as whole, with only minor to moderate differences between techniques suitable for an OCG specialising in investment fraud to one smuggling cocaine and laundering the profits. As the evidence began to be analysed it was further theorised that because of the overarching concept that organised crime operates as a business there was no need to make separate versions of the toolkit for specific criminalities. A similar argument could be made against including cybercrime in the research parameters but given that the EU's criminal information sharing and analysis agency, Europol, describes cybercrime as 'one of one of the most dynamic and challenging threats faced by Member States' (2016:20), it was deemed appropriate for inclusion. According to the Office for National Statistics (2020) it is the fastest growing crime in the UK. Furthermore, the National Crime Agency (2016:3) assesses that there is a 'real and immediate threat to UK businesses from cybercrime' and argues that criminal capabilities are currently outpacing law enforcement and community responses. Other sources - including an economic crime survey by PriceWaterhouseCooper (2016) and research commissioned by the UK Government (2016), as well as recent attacks on UK business such as Talk Talk (BBC 2015), Tesco's Internet banking systems (IB Times 2016) and Three Mobile (Telegraph 2016) - indicate the impact cybercrime can have and the technical ability the individuals and groups behind these attacks possess. For these reasons, it has been decided while it may be easier to narrow the focus of my research right down to one facet of organised crime, the benefits to policing overall would be substantially reduced. As a result, it has been admitted at the outset that, while a broad set of criminal parameters will add challenges to the research, in order to realise the benefits to the fullest extent, fraud and cybercrime will be included alongside traditional activities with the ultimate aim to develop a toolkit covering the entire spectrum of organised crime.

Definitions

Since the year 2000, the United Nations Convention against Transnational Organized Crime has provided an internationally shared definition of an organised criminal group as "a group of three or more persons existing over a period of time acting in concert with the aim of committing crimes for financial or material benefit." The National Crime Agency (OCGM presentation 2018) defines an OCG as "Individuals, normally working with others, with the intent and capability to commit serious crime on a continuing basis, which includes elements of planning, control, coordination, structure and group decision-making"; it also adds a caveat that this definition does not require the OCG to have committed serious crime only the intent to do so. However, Europol (SOCTA 2017) say this definition does not adequately describe the nature of modern organised crime networks; "OCGs operate in a criminal economy dictated by the laws of supply and demand and are favoured by social tolerance for certain types of crimes". While according to Interpol (2018:2) Definitions of what constitutes organized crime vary widely from country to country. Organized networks are typically involved in many different types of criminal activity spanning several countries. These activities may include trafficking in humans, illicit goods, weapons and drugs, armed robbery, counterfeiting and money laundering. "Organized crime is transforming. Traditional structures headed by powerful kingpins controlling niche crimes are increasingly replaced by loose, flexible criminal networks that shift operations and modify their business models based on opportunities, incentives, profitability and demand." In this case, though all the above definitions are valid, to avoid confusion the UN definition will be used.

The ease of international trade and travel, instantaneous access to information, advanced technology and widespread encrypted communication provide ripe terrain for transnational crime to flourish. Organised crime does not respect borders, therefore, if a positive impact is to be had on a global scale, any measure developed with the aim of disrupting their impact must also work equally well in groups operating in Brasilia or Bradford. However, due to connections within UK law enforcement, as well as logistical access, feasibility and time constraint issues, my case studies have been limited to high level UK based (geographically speaking) groups.

The phenomena of street gangs must also be considered. In many cases the phrase 'gangs' is used interchangeably with organised crime. For example, Johnson (2014), in his book *Young Blood,* highlights how groups of teenaged drug dealers, realising the profit the traditional OCG leaders were making from them, decided they wanted more power and money in exchange for the risk they were taking, entered into an all-out war with the management structures of the Liverpool cartel. Using evidence from both criminals and police, Johnson highlights how the teenagers began acting more and more like US street gangs and the conflict that created within the criminals at the top of the organisation who still played by the underworld code, which was steadfastly ignored by the younger generation. Johnson (2014:11) writes how in the late 00's and early 10's the old godfathers who previously ran the cartel have largely been usurped by a new generation of teenage street gangs.

> They are armed to the teeth and refuse to play by the old underworld codes… Stop at nothing until they were given a piece of the action by the established order of the underworld, blowing them up with car bombs throwing hand grenades through their windows and spraying their cars and houses with automatic gun fire.

Traditionally gangs are used as a term for a group of juvenile criminals, whereas organised crime often describes career criminals, but confusingly a group of career criminals will often be referred to in the media as a gang. In addition, some groups of organised criminals could be defined as a gang, for example organised street robbers or pick pockets.

While linguistically intriguing, the question of whether these teenagers are gangs or organised criminals is not one that is centrally important to this thesis. Ultimately, while there are clear differences between street gangs and organised crime groups, particularly relating to structure, aims and often criminal sophistication, from the perspective of this thesis how the group defines themselves is less relevant. Yet the concepts outlined in this research are relevant to this thesis, providing the group has some sort of structure and commercial outlook, i.e. is acting like a business, regardless of size or sophistication.

OCG vs OCN vs OCE

Similarly to the terms 'gang' and 'Organised Criminal', 'Organised Crime Group' and 'Organised Criminal Network' are often used interchangeably. Having defined the former, we must therefore briefly define the later. Podolny and Page (1998) describe Network as a "form of organization as any collection of actors (N⩾2) that pursue repeated, enduring exchange relations with one another and, at the same time, lack a legitimate organizational authority to arbitrate and resolve dispute that may arise during the exchange". This fits in broadly with the aforementioned law enforcement's definitions of OCG, with the added clarity around the lack of legitimate organisational authority, which firms up both the parallels between organised crime and legitimate businesses and also their key differences. Furthermore, to add to the already cluttered definitional landscape, Organised Criminal Enterprise (OCE) is a term coined by myself to describe poly crime, highly sophisticated OCGs who mimic the operational and organisational structure of businesses. Ultimately what you call the entity is unimportant, whether you determine that the organisation in question is an OCG, OCN, or even an OCE the key question from the perspective of answering the research hypothesis from this thesis is: are they acting like a business? If they are acting like a business (whether a small or large enterprise), then adapted versions of business analysis techniques can be effective in designing a strategy to impede their operation.

Business Analysis

According to the International Institute of Business Analysis (2021), Business Analysis is the practice of enabling change in an organizational context, by defining needs and recommending solutions, by identifying and articulating a need for change in how the organisation works, and by facilitating that change. "As business analysts, we identify and define the solutions that will maximize the value delivered by an organization to its stakeholders." In this case the business need isn't to enhance the organisation (OCG), it is to dismantle it. This can be achieved through simple reverse engineering IE. We're not looking to improve an organisation's ability to deal drugs, we are looking to impede it. Specifically, we can do this through using techniques designed to explore its strengths and weaknesses that can then be used to exploit operational vulnerabilities from a law enforcement investigatory perspective.

The definition of business analysis techniques must be determined. In this case it is a catch-all term, including, but not limited to, strategic analysis, and change management techniques. PESTLE analysis (2015) describes business analysis as the discipline of recognizing business needs and findings solutions to various business problems, helping them to understand an organization's structure, policies, and operations. For the purposes of this research, I will define it as any strategy/ tool, model or technique used by legitimate businesses to assess strengths, weaknesses, or any other characteristics. When existing techniques have fallen short – having been designed to be applied to legitimate enterprises with data that is readily and easily available- rather than an ever adapted fractured intelligence picture that characterises coverage of most OCGs, they have been altered to

better reflect the complexities of OCG investigation. These alterations are detailed in the results section of this thesis.

Business analysis techniques have a multitude of applications, with each technique designed with a different task in mind, the 7Cs of consulting was designed by Mick Cope to assist consultants in identifying strengths and weaknesses in how businesses operate to facilitate change, while McKinsey's 7S was designed to enhance an organisations strategic vision, determining which factors need to be present to help achieve organisational goals. Porter's 5 forces (Mindtools 2021) is another key tool identified and adapted during this research; it is used to understanding the competitiveness of a business environment and for identifying a strategy's potential profitability. This is particularly useful from an organised crime investigation standpoint as once you understand how competitive an OCGs core business is, for example its wholesale drug trafficking operation, you are then aware of its weaknesses and can begin to generate ideas on how to exploit this. The initial similarities in the applicability of techniques developed by Cope, McKinsey and Porter for legitimate businesses into an organised crime context formed the basis for further research in this area, which is detailed throughout this thesis.

Providing a theoretical basis for operationalising the product of this thesis

The ultimate aim following the completion of the research element of the thesis is to operationalise this in a police capacity, through the development of a workable product aimed at detectives investigating organised crime. The thesis will serve as the evidence base for the project and as part of the reflexive section examine the process and challenges associated with innovating in this particularly complex and niche area. Project U BATTLE has fostered close cooperation with the City of London Police and the Analysis and Insight team at the Home Office. The foundation of U BATTLE will be the evidence base outlined in this thesis. While it is accepted that the minutiae of operationalising and commercialising the product are not the focus of this thesis. The challenges and solutions of the former serve to demonstrate the soundness of its academic hypothesis. The research will encompass and be relevant to numerous areas of policing, including intelligence analysis, criminal investigation, and investigative strategy development; it is hoped the end result will have a positive impact on organised crime on a local, regional, national and international level.

Uniqueness of investigating organised crime groups as an entity

Unlike homicide (2006), no two OCGs operate in an identical manner, and the scale and nature of criminal activities in which they engage is so varied. Because of this, there is no investigation manual outlining the steps officers should take once an investigation into an OCG has begun. However, the Senior Investigating Officer's manual (Blackstones 2010) has been an invaluable source in identifying current investigative processes. The fact investigations are currently tailored more towards an individual rather than a criminal entity, the nature of today's economy and the move towards cashless society means it is becoming more and more difficult for criminals to turn the proceeds from their illicit activities into legitimate revenue, although the advent of digital currencies is providing new opportunities in this area. As such, due to their profit-driven nature, almost every OCG operating in the UK regardless of their main criminal activity is involved in money laundering on some scale (NCA 2020). While financial analysis is a key investigative tool, it is very much its own entity. and while analysis of the processes behind the web of shell companies abuse of bureau d changes and conversion of commodities into cash can give a real sense of the sophistication and proportions of an OCG, it is very much an established era of research already and as such will be one of the areas which will be focussed on only peripherally in this thesis.

Research origins

The main origins of this research were twofold: firstly, as a freelance journalist covering organised crime, the author acquired a copy of Tom Wainwrights *Narconomics* (2016)- which outlines the similarities between the operation of OCGs and big business, the second was a module studied during the author's MA in Terrorism, International Crime and Global Security at Coventry University which introduced him to the myriad of techniques capable of examining the every facet of the strengths and vulnerabilities of a legitimate enterprise. The spark to put the two ideas together soon followed and the research idea began to take shape.

Enter U BATTLE: where does U BATTLE sit in the investigation process?

This section melds the scholarly research base set out in the previous chapters with an assessment of the insertion of the results of this research into a practical policing context. It takes both academic and policing work on the criminal investigation process and outlines a series of potential insertion points for the U BATTLE toolkit and in so doing showcases the value of the academic concept that sits behind it and is central to this thesis.

The difficulty in making an objective assessment when the decision maker is a human being with inbuilt, conscious and unconscious biases and prejudices is not a new challenge and one that has plagued OCG ranking systems- and every other ranking system that relies on a human input- for some time. So far, while a technological solution in terms of machine learning could be available in years to come, a solution for the present is yet to be forthcoming.

In order to allow the most effective U BATTLE analysis, specific criteria based on the case studies that were analysed during this research have been developed. It is anticipated that these criteria will be beneficial during any future implementation within policing.

An OCG should have:

- Committed, or has the intent to commit, serious crime and/or significant harm;
- Have an OCGM banding of 1,2,3 and a capability ranking of either A,B,C;
- Be employing a recognisable business model;
- Have an involvement in a product or commodity-based activity- defined broadly to include fraud; and
- Significant intelligence reports on its operation or the willingness to develop intelligence based on U BATTLE recommendations

From a law enforcement perspective, there are two main methods for applying U BATTLE. The first is more of a commercial element utilising U BATTLE as a consultant analyst tool for particularly challenging OCGs; the second is for analysts and detectives to apply U BATTLE of their own accord. There are several investigative challenges around implementation of the U BATTLE methodology from a practical policing standpoint, which informed development from an academic perspective. While there is a murder investigation manual (College of Policing 2006) which runs to several hundred pages and outlines in great detail the most effective methods and techniques to utilise in order to solve a murder, there is, unfortunately not an equivalent document for organised crime investigation.

The closest to a step-by-step guide is the SIO manual (Blackstone's 2010) regarded as the bible when it comes to investigating serious and complex crimes, such as homicide. However, this is not designed for organised crime and aims to act more broadly as an aid for a whole spectrum of criminality that a police officer may encounter. There are several reasons why this occurs and correspondingly why this presents challenges in identifying the precise point within an investigation- where the fruits of this research would be most useful. It is also why, while this research can make informed suggestions surrounding the best point of implementation during a specific investigation, the final call should always rest with the officer or analyst closest to the investigation. Firstly, unlike murder which is one crime and fits neatly within a policing specialism, organised crime, which as we have previously discussed, comprises a multitude of 'traditional' criminal activities, as well as an ever-changing number of newer crimes. The methodologies, modus operandi, and business models vary significantly depending on the group under investigation; for example you would employ very different tactics to disrupt a group of boiler room fraudsters operating in the City of London than you would a Turkish OCG importing heroin.

The fact that OCGs are opportunistic and often do not restrict themselves to single crime types is another reason there has yet to be an organised crime investigation manual and why OCG investigation is so challenging. The transnational operation of organised crime also works against the local regional and national structures of policing with criminals able to cross international borders in more timely manner than law enforcement. While there are certainly organisations (such as Europol and Interpol) who have had numerous successes in linking together law enforcement from across the country to combat these groups, factors such as the integrity, budget, and will of foreign law enforcement come into play which means that a cohesive international approach to tackling criminality that sits above the piecemeal efforts of individual nations is still, and likely to always be, a pipe-dream and certainly beyond the scope of this research.

Overall, it remains the case that organised crime is growing and flourishing in the modern world and the question of whether a product such as U BATTLE can in itself turn the tables in organised crime is perhaps naïve, but through identifying the huge similarities in organised crime and business, sifting through existing analytical techniques and taking the step of applying them to intelligence data allowing investigators to make strategic and tactical decisions based on the business operations of these criminal entities, it is certainly possible that it could have a positive impact on detectives abilities to dismantle OCGs. Furthermore, if artificial intelligence is utilised (RUSI 2019) alongside the previously mentioned illusivity of international cooperation, then the investigative benefits grow as more data is received. U BATTLE is by no means a silver bullet for OCG investigation, but as the evidence shows, it can be used in a variety of cases to enhance analytical capacity and therefore improve the development of investigative strategies and consequently improve capabilities. The concept that sits behind U BATTLE (organised crime operates as business and therefore we can use adapted versions of business analysis techniques to enhance the development of investigative strategies against them), and the U BATTLE toolkit itself - is only as good as the quality and quantity of intelligence it is based on.

As restricted reports produced by Stanier (2017) note, there has been a 48% drop in intelligence reports, the logical extension of this is a likely corresponding impact on the quality of intelligence picture of OCGs that police have to work with. Furthermore, this can only have a negative impact on analytical ability and the effectiveness of tools such as U BATTLE to draw accurate conclusions. The solution to this sits outside the remit of this paper, but its impact remains a major inhibitor as, without the resources to find the answers to the key questions in vulnerability that the U BATTLE framework is designed to pull out, the results will suffer.

Academia to investigation: Challenges

Chapter 10 of the SIO Manual (Blackstone's 2010) identifies the different elements of investigative strategies, for example a technology or media strategies. However, it makes no mention of the consideration of an analytical strategy, which given the importance of analysis to investigative decision making should be of paramount consideration. The lack of academic literature on investigative strategy development as a whole, outlines the informality of the current policing approach.

There are several challenges involved in bringing a concept proved in academia into an area such as policing where success, or lack of it, has a real impact on real people. Firstly, policing, by its nature is a risk averse sector, and senior officers are often reluctant to test new concepts and ideas at an operational level. It is for this reason that the initial versions of U BATTLE were restricted to cold cases and only latterly was its use authorised on specific operations. Once you get beyond the neighbourhood teams, policing, like central government, is very much a bureaucracy and the processes and procedures that are in place often take months to navigate and involve copious amounts of preparation, and often get pushed back at the last minute when agendas change, and operational actions take precedent. The solution developed to this was to develop a relationship with the Home Office analysis and Insight team, this began life as a 3-month short term contract to essentially test the concept. At the end of the 3 months I produced a report which was circulated to senior figures within the Home Office.

The unique promotion and role allocation cycle that is active within policing, which sees a high per centage of officers moved posts at least every three years, has created a culture that means projects are often 'doomed to success' (Bullock et al 2006). This means that if an officer or staff member is aiming for a promotion, any negative aspects of the project will be downplayed or omitted, and the positive elements put forward, this then creates an atmosphere where nothing ever fails and therefore no learning points or improvements are made.

Methodological and criminological theory

It was worth considering the opinions of prominent methodological scholars to further enhance the veracity of my methodology. According to Bryman (1989), in *Real World Research* (Robson 1993) survey research entails the collection of data on a number of units and usually at a single juncture in time with a view to systematically collecting a body of quantifiable data in respect of a number of variables which are then examined to discern patterns of association. I have adhered to this definition in my own research. In this case, questions were asked around the validity of the core research concept – that organised crime operates as a business therefore we can use business analysis to enhance investigative strategies. Questions were also asked around the use of such a product by analysts, its impact on policing, current police capabilities in this area. From this, a Brymanite approach was used, with the results examined to determine patterns and trends, in this case whether there was an appetite for the solution to the problem outlined in this thesis and whether the core research concept was valid in the eyes of practitioners, in both cases the answer was a resounding 'yes'. Robson (1993:125) assesses the advantages and disadvantages of surveys. Advantages include their position as a "central real-world strategy", i.e. taking research out of the theoretical space into the practical space, thereby enabling the sampling of multiple viewpoints. Disadvantages are that that results cannot be trusted as they are "a product of uninvolved respondents whose answers owe more to a mixture of politeness, boredom and the desire to be seen in a good light than their true feelings".

In the context of the survey carried out for this research, the former is certainly true as it gave an opportunity to gauge the opinion of the audience, whose role is organised crime analysis at a sophisticated level. The latter point is more relevant to general marketing surveys than those involving professionals, however the point about answers reflecting the respondent's politeness and desire to be seen in a good light are worth considering. In the case, the survey would have been forwarded to respondent by a superior officer so there may have been an element of responding to be polite, resulting in interviewee bias and psychological bias.

In the high pressure and highly busy world of policing, boredom is unlikely to have been a factor. Objectively, given the hierarchical nature of policing, social desirability bias, the desire to be seen in a good light would be worth considering. However, given the overwhelmingly critical nature of the responses to the questions surrounding police capability, in practice this seems not have been a problem. Robson's comments on case studies are also worth considering, he suggests three elements should be utmost in the thoughts of those designing case studies: the questions the study is asking, the data that is collected, and the conclusions drawn.

The questions that were asked in the case studies used in this research were adapted from key questions that sit behind various business analysis techniques. The questions were then adapted following multiple forms of feedback; this feedback included: duplication analysis; interviews; the author's own assessment, based on their own analytical experience; and blind feedback from analysts who trialled the toolkit on a live case. While the combination of methodologies to select the questions may be unorthodox, and not without weaknesses such as bias, the feedback received indicates it is methodologically sound. The data that was analysed was sourced from law enforcement the results of that analysis, i.e. the conclusions drawn from the case studies, were based on the results of the analysis of the case studies themselves, the strengths and weaknesses of which then informed the next version of the toolkit.

Robson (1983:227-242) also gives insight into the craft of interviewing, as well as insights around question structure, the phrasing of questions which can unintentionally lean towards the production of certain answers and potential pitfalls of semi structured interview. For example, the balance between prepared and off-the-cuff questions, which can be crucial in allowing the interviewee an opportunity to open up. This was useful when prepping for the interviews.

In terms of criminological theory, the research follows the essence of situational crime prevention (SCP) (Oxford Research Encyclopaedia 2021) a school of thought that argues analysis of the factors that impact a situation and a subsequent intervention based on those factors can reduce the crime rate in a specific area, SCP is similar to the problem-solving approach advocated by the College of Policing and Intelligence Led Policing pioneered by Professor Jerry Ratcliffe (2016). In practice, the application of the principles of this thesis to an organised crime group is a perfect personification of SCP, as the U BATTLE framework looks at the factors that enable the successful operational of an OCG and then how policing can use them to dismantle the OCG. Furthermore, the research adheres to rational choice theory (Britannica 2021) school of thought, based, on the assumption that individuals choose a course of action that is most in line with their personal preferences. According to McCarthy and Chaudhary (2014) Rational Choice Theory, developed initially in 1764 by Cesare Beccaria and refined in the 1960s by Gary Becker, refers to a set of ideas about the relationship between people's preferences and the choices they make. This is indirectly applicable to this thesis in two ways. Firstly, from a criminal perspective, rational theory assumes that a criminal will make criminal choices therefore this rationale is relevant in when designing the U BATTLE questions. Secondly, from an analytical perspective, a theory that is based on the concept that everyone acts rationally and logically is an encouraging one.

Thesis methodology: the details

Data collection timeline table

Type of Data Collection	Date conducted
Creation of initial U BATTLE questions through analysis of existing business analysis techniques	June 2019- August 2019
Semi structured interviews	September 2019 - January 2020
Survey	January 2020- March 2020
Case study analysis- historical data	March 2020- May 2020
Case study analysis- live data	May 2020- June 2020
Blind feedback on U BATTLE	June-2020- July-2020

The research uses a multi-tiered methodological approach that has tested the validity of the core concepts outlined within, resulting in the development of a framework that forms the basis of an evidence-based policing tool. Prior to the instigation of the methodology, a detailed literature review took place, where an extensive trawl of existing literature in criminal investigation, business analysis, policing problem solving, and organised crime operation was undertaken through a strategic keyword search of both academic literature, policing documents, and open-source material. The methodological strands are synopsised first briefly and then in more detail below.

Firstly, an assessment of existing business analysis techniques was made through a manual examination of the key questions that are included within these techniques. From this, the organised crime applicability index (OCAI) was created. The OCAI brings together factors that legitimate business analysis techniques exhibit which can be translated to an organised crime context. The criteria for the OCAI were based dually on the aforementioned manual trawl of business analysis techniques, using similarity analysis to determine which key questions were both most common and applicable to both illegitimate and legitimate enterprises, and secondly from existing knowledge of organised crime, also informed by this research. The OCAI aided the adaption of the existing techniques focusing on the actions of legitimate enterprises and enabled the creation of version (V1) of the toolkit.

Due to the length of the V1 of the toolkit, for testing purposes the contents were split into four groups each utilising four different techniques. The first two groups related to business operation vulnerabilities and were tested on Operations Sparrowhawk and Operation Neem respectively. The third group was tested on Operation Vanbrugh, and related to financial vulnerabilities. The fourth related to environmental vulnerabilities and was trialled on Operation Magpie. Following the application to the first four case studies, using replication and applicability analysis, the toolkit was then redesigned removing sections that were not applicable or overlapped. The structure was also redesigned bringing it together under three sections: business vulnerabilities, financial vulnerabilities and environmental vulnerabilities. V2 of the toolkit was then trialled on four more historical cases: Op Act from the IPO, and three drugs OCGs from Police Scotland (Escalade, Yearling and Horseshoe). V2 was then redesigned again with the structure changed to focus on three key areas (business vulnerabilities, financial vulnerabilities and market vulnerabilities). The environment vulnerabilities section was brought into business operation vulnerabilities following feedback. Each area was evaluated through use of a short number of bullet points, asking a number of questions based on adapted versions of business analysis techniques. This was done following feedback from early interviews conducted which noted the V1 format was too long winded and contained some repetition.V3 was then trialled in the survey and interview methodologies (see separate section) and the improvements from this were implemented into version four, which was trialled on live cases from the South East ROCU and from the Met Police and Chilean PDI (see case studies chapter). V5 utilised blind feedback. This involved the toolkit being disseminated to specially selected analysts and applied blind (without the author's presence, on a live OCG) with the feedback then being presented afterwards.

Interviews and survey questions

The structure, content and concept of U BATTLE and the research, was also questioned in the semi-structured interviews, as well as in the survey. A total of 20 policing professionals were interviewed for the research, these ranged from several high-profile academics to those involved in policy at a high level, as well as operational police officers, experts in business analysis, and authors who have written about how organised crime is mimicking legitimate businesses. The interviews were conducted face-to-face where possible, but on several occasions by either phone or Skype. Interviewees were semi structured, interviewees were asked approximately ten questions, approximately half of which were asked to all interviewees, the remainder differed depending on the interviewees area of expertise. A sample of the questions asked is below:

1. How accurate to you think the underlying concept of this research (that OCGs act like businesses) is (show the interviewee the toolkit) ?

2. How useful could a product developed from this concept be, and where do you see such a product sitting within the investigative process?

3. Can you suggest any areas that need to be further examined or improved?

4. In terms of improving investigative efficiency, how much impact do you think this research will have?

5. How effective is the splitting of techniques into business financial and environmental vulnerabilities, is that useful, or should any product be packaged in a different way?

6. How would you describe the current analytical capabilities against OCGs, and would something like this research is proposing be of benefit?

7. How effective would you say policing is at utilising expertise from linked sectors such as business and is it deemed useful?

8. Do you agree that this sort of research can work alongside not replace officer gut instinct?

9. The number of pieces of intelligence reported in the UK has dropped by 48 % how much of an impact to you think this will have on OCG investigation in general and the aims of this research specifically?

The survey was designed and completed on free platform Survey Monkey (Survey Monkey 2020); the South East Regional Organised Crime Unit acted as a gatekeeper to the entire ROCU network. The survey was aimed at both investigators and analysts, with the aim of determining the applicability of both the theory underpinning the research and of any analytical product that is born from it. The survey questions are below.

U BATTLE Evaluation survey

Top of Form

1. What is your role within the ROCU?

○ Investigation

◉ Research and analysis

2. How accurate do you think the underlying concept of this research (that OCGs act like businesses) is?

○ Very accurate

○ Neither accurate nor inaccurate

◉ Very Inaccurate

3. How useful could a product developed from this concept be and where do you see such a product sitting within the investigative process?

4. Can you suggest any areas that need to be further examined or improved?

5. In terms of improving investigative efficiency how much impact do you think this research will have?

- A significant impact
- A small impact
- No impact at all

6. How would you describe the current analytical capabilities against OCGs and would a product such as the U BATTLE toolkit be of benefit in improving them?

7. How effective would you say policing is at utilising expertise from linked sectors such as business, is this an area that needs more focus?

8. Do you agree that this sort of research can work alongside, not replace, officer gut instinct to enhance organised crime investigation, or will policing always be wary of change?

9. The number of pieces of intelligence reported in the UK has dropped by 48 % how much of an impact to you think this will have on OCG investigation in general and the aims of this research specifically?

How data was chosen

The original plan was to focus on groups operating at a high level of criminality and sophistication, as identified by the criteria in the OCGM cut from COLP, the OCG operations within COLP territory. This decision was made because of the access and connections to COLP systems and staff that were in place as a result of the relationship that was developed between COLP and the author for the duration of this research. Even as a volunteer at COLP the bureaucratic, logistical and security challenges associated with accessing data from other forces (each force owns their own OCGs therefore access to cases from multiple forces would have required multiple time-consuming vetting applications and information sharing agreements. However, the niche nature of criminality that COLP deals with meant there was a dearth in getting the required depth of cases within the force that showed an initial interest in the project. The logical result of this was to expand the research to include data from different cooperating forces, who had expressed an interest in the project through the author's presentations at conferences.

Ensuring the balance between researching the principle of the thesis in an unbiased manner (essentially being open to the conclusion that my hypothesis may be wrong), particularly given the work that has gone into U BATTLE development in parallel to this research, has been a challenge. Despite a fervent conviction that the idea can enhance the efficiency of OCG investigations, endeavours have been made to remain unbiased during the research phase. It is hoped this has been achieved through both my own discipline as well as guidance from others in both policing and academic circles.

A total of 23 semi-structured interviews were conducted over a period of three months. These interviews were mainly conducted face-to-face in secure law enforcement environments. However, some non-policing interviews were conducted in public places such as cafes, and others were conducted over the phone. A list of interviewees is below.

- Interview 1: A senior officer involved in organised crime investigation coordination at the national level;
- Interview 2: A senior officer involved in organised crime investigation coordination at the national level;
- Interview 3: Senior officer specialising in Fraud OCGs;
- Interview 4: Senior officer specialising in Fraud OCGs;
- Interview 5: A senior officer involved in organised crime investigation coordination at the national level;
- Interview 6: An academic specialising in illegal markets;
- Interview 7: A senior researcher from a policing think tank;
- Interview 8: An academic specialising in illegal markets;
- Interview 9: A senior officer involved in organised crime investigation coordination at the national level;
- Interview 10: An academic specialising in illegal entrepreneurism;
- Interview 11- A detective inspector specialising in organised crime;
- Interview 12: a journalist specialising in organised crime economics;
- Interview 13: a journalist specialising in organised crime;
- Interview 14- An investigator specialising in organised crime;
- Interview 15 Former SIO and intelligence officer turned academic;
- Interview 16 Former SIO turned academic;
- Interview 17 Former Head of analysis turned academic;
- Interview 18: Academic specialising in business analysis;
- Interview 19: Former Chief Constable specialising in organised crime turned academic;
- Interview 20: Head of Forensic Accountancy for large force;
- Interview 21- a former chief constable specialising in organised crime turned academic;
- Interview 22: a chief constable with responsibility for cyber and organised crime;
- Interview 23: a former SIO now involved in training analysts and investigators through academia

The role spread of those interviews is as follows:

<u>Police</u>

- 2x officers specialising in fraud investigation;
- 4x senior police officers with responsibility for organised crime investigation coordination at a national level;
- A detective inspector specialising in organised crime;
- An investigator specialising in organised crime;
- Head of Forensic Accountancy for large force; and
- A chief constable with responsibility for cyber and organised crime

Former Police now academics

- Former Head of analysis at a large force turned academic;
- 3x Former SIO turned academic;
- 2x Former Chief Constable specialising in organised crime

Academics

- 2x academics specialising in illegal markets;
- An academic specialising in illegal entrepreneurism;
- Academic specialising in business analysis

Journalists and researchers

- A senior researcher from a policing think tank;
- A journalist specialising in organised crime economics;
- A journalist specialising in organised crime

Case study selection

While the details of the OCG selection process will be made clear in future chapters, there are several factors which it is envisaged will make an OCG more suitable for analysis and which will inform choice of case study. This was balanced against available data.

These include:

- International reach, for example smuggling goods or laundering money abroad;
- A diversification from one crime into others;
- Involvement in multiple successful criminal enterprises;
- A level of sophistication; and

- A distinct geographical operating environment.

A table of the source of the case studies and the restrictions surrounding them is below:

Case study name	Case study source	Case study format
Sparrowhawk	IPO Intelligence Hub	Raw intelligence logs and intelligence profile of OCG
Neem	COLP Fraud team	Post case review (officer conduct redacted but otherwise full details provided)
Vanbrugh	COLP Fraud team	MG3 report to the Crown Prosecution Service
Magpie	IPO Intelligence Hub	Intelligence problem profile of OCG and nominal profiles
Act	IPO Intelligence Hub	Intelligence problem profile of OCG
Escalade	Police Scotland	Briefing documents following completed Jackal analysis on investigation
Horseshoe	Police Scotland	Briefing documents following completed Jackal analysis on investigation
Yearling	Police Scotland	166 anonymised intelligence logs relating to OCG activity
Reduce	SEROCU	A series of intelligence profiles
Genie	Chilean PDI/ Met Police	A series of documents/ open-source research provided by both Met Police and PDI

A critique of the methodological approach: measuring effectiveness

The impact that organised crime has is not binary, and while there are some metrics available, the majority of a groups' criminal activities are often hidden. Due to their concealed nature, an operation to disrupt them may improve society overall yet does not have an impact on local crime figures. Due to this phenomenon, measuring organised crime, and by extension measuring the success of any techniques that aim to reduce this impact, is a challenge law enforcement has been facing since the inception of organised crime itself. The blind feedback methodology was devised specifically to combat this weakness, through allowing the results of the research to be tested. Ultimately, while not able to do this in a numerical form, the written comments that were received and are included in the results section of the thesis go some way, as was their purpose, to assuaging the weaknesses of designing, adapting and implementing a complex methodology to a complex subject. However, this does not mean the weaknesses are not present, even if attempts have been made to mitigate them.

In the early stages of the project the analysis has been mainly undertaken by the researcher in order to fully develop the evidence base, in the latter stages a series of blind trials were applied. Dependent on the methodology, respondents were chosen for a range of reasons, survey respondents- by the nature of the approach were chosen by the gatekeeper, prior to this the organisation (South East Regional Organised Crime Unit) was identified by the author as one who

would have an interest in the research, there was also an element of luck as this contact was generated after attending a conference as an analyst at City of London Police. The interview respondents were identified through an informal drafting process of those deemed to have expertise in organised crime. This selection of respondents came from either from an academic or policing perspective, or both, as well as from a governmental background, from think tanks, and from journalists and authors specialising in the subject. Given that the list was drafted by myself, it is susceptible to biases and also influenced by personal contacts. For example, if a senior person could be reached through a mutual colleague, then they were more likely to be contacted, more likely to respond positively, and more likely to provide insightful comment.

Those who provided feedback or testimonials on the later versions of U BATTLE did so as a result of meeting at conferences or conducting the survey and interview elements of the research. The author began this research as a PAYE analyst in the Economic Crime Directorate at COLP, progressing onto a bespoke role specifically related to this research. This role was then relinquished during the last year of the research. As a result of this, the possibility that a role within law enforcement during the first two years of this research has influenced the academic independence of the project must be addressed.

The agreement in place with COLP (supplemented with a second agreement that clarified the author's ownership of the intellectual property surrounding the research) gave the author a police email address, vetting credentials, and a small amount of funding for travel expenses relating to the research. This was given in exchange for COLP having access to any practical policing product that resulted from the research. It must be noted that COLP never tried to influence the research in anyway and allowed the author full independence to run the project as he saw fit, they were aware of the three year timescale of the research prior to its instigation and did not try to rush the results to suit their own purposes, which can be a common issue of insider outsider research as noted by Selby Fell (2019).

In fact, the bureaucratic structure of policing worked in favour of academic independence in this case, as the initial agreement was set up with one directorate head who subsequently moved posts. During this transition, the regular feedback meetings between the author and the directorate head that had been set up were discontinued, whilst leaving the research funding and expenses agreement intact. This allowed the research to continue without any pressure from a stakeholder who, logically, due to their role in facilitating access to research and also providing research expenses, could have been problematic in their demands.

U BATTLE case study development process

In each of the nine case studies, only one of which is included in the thesis for reasons of both brevity and security, the author collected and collated data and then applied that data. Data was either in the form of raw intelligence or intelligence profiles or summaries and applied to what was at the that time the current version of the U BATTLE questions. The transition from one version of U BATTLE to the next (see more in U BATTLE step-by step development chapter) was then based on a combination of formal feedback from the relevant agency- in the SEROCU and PSNI cases or informal feedback in the IPO, Police Scotland and Chilean Burglary case. This feedback along with a diagnosis of what worked: a manual trawl of the questions by the author following the completed assessment looking at which questions elicited a response detailed enough to develop a vulnerability based investigative strategy and were broad enough to apply to all OCGs. This reliance of the methodology on elements of self-assessment to progress between participant assessed sections and to fully develop the research question, as has already been discussed, its own sets of weaknesses, but the

increased amount of self-reflection that such a methodology requires is also beneficial as it ensures a constant measure of thought, which further tightens the research principles- in this case a constant assessment of a la College of Policing, what works.

The operation Reduce case study is the only one used here, in an ideal world all ten case studies would have been presented but, the lengthy nature of the documents, as well as their sensitive nature prohibit this. Numerically, due to the 37 questions in the U BATTLE toolkit and the detailed nature of the intelligence I received, the total number of words for all case studies would have excluded 25,000, which given that case studies are only a portion of my total methodology was deemed excessive. Therefore, after consultation with my supervision team, it was decided one case study was to be included in full, alongside a detailed account of the process involved in the other nine. The purpose of the case study is to mimic the interpretation of a trained intelligence analyst and assess their response to the U BATTLE questions, with the ultimate aim of creating a set of questions that, when applied to an OCG data set, both prove my hypothesis surrounding the applicability of business analysis techniques to use against OCGs and also form the basis of a practical policing tool for this purpose. In the case studies used in this case, the author, an analyst with significant OCG experience, put themselves in the position of intelligence analyst, a technique analyst call role playing. The author then worked through the questions themselves, applying the data to them in order to determine which were useful in generating data that could develop an investigative strategy. While using myself in this way has, as has already been discussed, has its own dangers, it was felt to be a successful methodology. Albeit it was also one bought on my necessity as it was found that, while law enforcement were very willing to trial versions of U BATTLE that were nearly complete, because of resourcing issues, they were reluctant to test work in early versions.

Policing has recently undergone a randomised control trial (RCT) revolution thanks in a large part to Professor Lawrence Sherman of Cambridge University, a pioneer in this area (Social Science Space 2013). However, in this case they were not appropriate for a number of reasons. The primary reason for this is because RCTs work best when comparing a certain action on two of the same crime types, i.e.: burglary. However, as no two OCG cases are the same so comparing results is difficult. Cases were originally going to be selected according to strict OCGM (the police ranking system for OCGs) criteria. However, several external factors meant the bank of case studies was built up on an organic basis instead. The nature of organised criminality within COLP's remit is mainly fraud/economic crime, which meant that the author had to go to other law enforcement agencies for cases studies of other crime types. As a consequence of this, it also meant that while the author could request the type of criminality they wanted to assess, the decision on which cases were received was not entirely independent. The decision also took into account factors such as use of covert tactics (which police are understandably reluctant to release) and whether the prosecution side of the case has concluded, given the lengthy nature of judicial reviews and other legal procedures there were cases that had been identified as suitable for use from several years ago but that could not be shared due to legal proceedings still being ongoing.

The use of focus groups was considered as an additional methodology, however, after discussion with supervisors it was determined that there could be significant overlap between the focus groups and the semi structured interviews. Moreover, given that the methodology was already multi-faceted, there was no need to add another element, so the idea was discontinued. Following a presentation at the National Analysts Working Group (October 2019), an additional spur of the moment methodology was initiated, following the sending an email to all members through the group coordinators asking for feedback on the content of my presentation. This email resulted in multiple new agencies expressing an interest in the research including Isle of Man Constabulary and

Her Majesty's Revenue and Customs. Additionally, a senior criminal analyst in a force in the east of England outlined a concern that the U BATTLE methodology was "very much overestimating the amount and detail of information that's held on an OCG", essentially asking questions that, at force level could not be answered. As a result of these additional responses, the blind feedback methodology was born.

> "It may be that OCG's owned by the NCA or maybe ERSOU have strong covert intelligence feeds which provide information of that detail, but not Forces. I'm aware of the intel picture on force owned OCG's and we would not be able to complete your document either through lack of intelligence or to include that level of detail would potentially show-out a source", one respondent said.

The level of OCG at which U BATTLE would be targeted has been addressed in the entry criteria shown in the introduction, and it is certainly true that it would be more suited to OCGs under the ROCU or NCA stewardship, partly because of the increased resources and capabilities that go with that allocation. However, that is not to say it could not be utilised at force level. For example, if U BATTLE cannot be used as an investigative strategy development tool, those same questions can be used to identify intelligence gaps. The comment around outing a source could also be addressed by appropriate security classification.

In terms of research philosophy, the author admits to being, as we all are, influenced by our past experiences. Having spent an extensive period as a researcher and analyst, in think thanks, policing and central government, during the period of the creation of the College of Policing. The research style that has evolved is very much practitioner focused and has influenced by the College of Policing's 'What Works' philosophy. Working with established academics, both in relation to this project and other pieces of work, has influenced my perspectives on research, giving insight into the mechanisms that make up the higher level of thinking required during research of this calibre. First-hand experiences within organised crime investigation at the NCA and SEROCO, as well as COLP, the IPO and numerous conferences have also highlighted a need for a formal investigative strategy development tool.

Relevance of Business analysis Methodology

For clarity and transparency purposes, it is noted that the author created the OCAI criteria, based on a manual trawl through the techniques that were subsequently included in the OCAI. Tentative analysis conducted before the main research began suggested that techniques such as business process modelling (BA Times 2019) and performance management (Cornerstone demand 2021) could be beneficial when assessing OCGs. Business process modelling essentially breaks down the requirements of the specific illicit activities of organised crime that the OCG is involved with, which is useful because from that we can determine the requirements, such as personnel, positions, connections, resources, profits, external conditions or linked to that, opportunities, demand and competition that are needed to carry it out. These details can then be worked into anti-organised crime strategies or use them as intelligence during an investigation.

Performance management can be used on an OCG operating in a specific area, such as a borough or housing estate. Using data obtained from police, i.e. crime reports, as well intelligence reports and packages, over a period of months you could build up a picture of activity identifying patterns, hotspots and trends. This can then be used to intelligently employ investigative resources. Performance management and business process modelling were not included in the OCAI as further analysis revealed techniques that were more suitable. Additionally, SWOT (Smartsheet 2016), a

matrix assessing strengths weaknesses opportunities and threats an entity faces, and PESTLE (PESTLE 2020), a tool to track the political, economic, social and technological environment being operated in, both initially appear be to be suitable tools to assess data obtained from law enforcement surrounding the business operations of these sophisticated illegal entities.

The first part of the research involved a literature review on the topic, as well as the resources provided within the Chartered Institute of Management and through internet research from various business and criminology journals, interviews were conducted with experts from both the criminology and business management sectors. Once the suitable analytics tools were assessed, informed by detailed research and consultation with experts within academia and business economics, and the data gathered, a comparative analysis of the viability of each of the tools used was undertaken. Through the application of techniques to various case studies, a typology of techniques listing suitable devices applicable to groups of different structures and criminal portfolios was developed.

It was initially anticipated between three and seven concepts would be picked out from my detailed review to take forward to use on my case studies, though this changed during the course of the research. This change occurred as a more detailed study found that the techniques could not be transposed as a whole. Furthermore, a survey and several stakeholder interviews were conducted. The survey was distributed to Regional Organised Crime Units and questioning respondents on the challenges faced by of current enforcement methods and scope for expanding it. The interviews were held with various stakeholders with a responsibility for policing organised crime. Both these research methods were combined to gauge thoughts on the success of current approaches to OCG enforcement, as well as the viability of the methods arising from this project. In addition, 23 semi structured interviews were conducted with experts in various facets of organised crime policing, as well as academic experts, researchers, and authors specialising in organised crime and those within business who have experience of using these techniques in the real world.

Risks and Ethics

"The biggest risk is not taking any risk... In a world that's changing really quickly, the only strategy that is guaranteed to fail is not taking risks."– Mark Zuckerberg (CBS 2011)

"A ship in harbour is safe, but that is not what ships are built for." – John A Shedd (1928)

These two quotations epitomise the notion of risk and its importance in terms of the process of progress. In the context of this research, while the risks must of course be assessed and actions taken to minimise them, risk is an inherent danger of research and it is impossible, particularly when dealing with organised crime, to conduct a study without any. Risk is inevitable, an incontrovertible unavoidable fact of life. It is the management of that risk to an acceptable level, and the balancing it against the benefits of your course of action, which is imperative to success. In this case, the nature of both organised crime and the criminals who conduct it means there are risks that must be assessed and countered when conducting research of this sort. These risks have been further complicated by the use of policing data sourced through the role the author held as research lead for Project U BATTLE.

Any identification of persons involved in organised criminality has been prevented by redaction. In cases where the data has already been anonymised prior to the researcher accessing it, then the case studies will be presented as requested by the law enforcement agency who owns the data. Identification of interview participants has also been considered, particularly those who have a current covert or overt policing role, as a result and despite earlier plans to identify participants to add veracity to the research findings, every reasonable attempt has been made to ensure participants cannot be identified either directly or indirectly in the thesis. They will be described in general terms, for example as either an academic, a policing expert or a police officer. If participants have been named or quoted, this is with their permission.

The author's position at City of London Police during the data gathering phase of the research has facilitated access to intelligence data on specific investigations for academic purposes. This has been done through conversations with relevant law enforcement personnel, for transparency the process for each case study has been outlined below. Only one case is included in full in the thesis for brevity purposes.

- COLP - Operation Neem and Operation Vanbrugh - discussions with the Director of Intelligence surrounding the research and its remit followed by conversations with the officer responsible for fraud investigations where applicable case studies were discussed. The researcher was then put in contact with the officers responsible for the above operations and after further discussions access was granted and emailed to the researchers COLP address.

- IPO - Sparrowhawk, Magpie, Act - this connection was brought about after the researcher presented at the National intelligence Conference, following the presentation which included a call for case studies. Head of the IPO Intelligence Hub Huw Watkins approached the researcher and following this several emails and a phone call a visit to IPO offices in Newport was arranged where the researcher was given detailed briefings on the operations of several OCGs involved in counterfeiting, from this, several suitable case studies were identified, the data was then emailed to the researchers COLP address.

- Police Scotland - Yearling, Horseshoe, Escalade - This connection originated during the Literature Review phase of the research, where the researcher came across a journal article written by Kenneth Murray, the Head of Forensic Accountancy at Police Scotland, his email address was obtained following a phone call to Police Scotland and an email outlining the research aims was subsequently sent, following this a phone call was arranged and the researcher then visited Mr Murray in Scotland to discuss case studies, once cases were identified they then underwent a rigorous approval process from Police Scotland, once this was completed the cases were released to the researcher.

- SEROCU - An email to the National ROCU Coordinator facilitated contacts in SEROCU, a series of meetings and phone calls to discuss data requirements then followed.

- Metropolitan Police/Chilean PDI - A contact with a Met Police Officer at a conference, led to emailing the lead investigator responsible for a string of burglaries carried out by organised Chilean Criminals, contact with the Policing Attaché at the Chilean Embassy followed.

The sensitive nature of the subject in general and the nature of investigations specifically meant that for reasons of security the obtaining of the case study data was conducted with the authority of City of London police under Project U BATTLE and then relevant permissions were sought to share this data (in either an anonymised or redacted state) for academic purposes. Security is of paramount concern in this area and as a result vetting to both SC and MV level has been carried out, this both gives the authority to view official level investigation documents that are highly relevant to my research and also acts as a vote of confidence and authenticity from a LJMU perspective.

Additionally, for security reasons, the majority of research emails have been conducted through a City of London rather than an LJMU email address, because of heightened levels of security and encryption. As well as providing security when sending and receiving sensitive documents, using a police email address also gives authority when requesting police data and as a result means a higher chance of obtaining the required data for research purpose. Previous experience within policing, as a researcher working for City of London Police, also highlights that an internal email is often responded to quicker than an external one. For the same reasons, the research was conducted using an encrypted COLP laptop with the majority of research files (with the exception of survey and interviewee transcripts which, to comply with LJMU ethics regulations, will be stored on the LJMU M drive) stored on secure police servers. Following conversations with my supervisors and the Head of LJMU IT, it has been agreed this was the best way to proceed. All documentation has been marked according to City of London Police security marking procedures, which were recently aligned with the Government Security Procedures.

In terms of data protection, new legislation governing the use and sharing of personal data (the General Data Protection Regulation), came into force in May 2018. The sharing of data between policing partners is permitted provided there is a policing purpose, which this research meets. Providing the policing data is either anonymised or redacted to ensure no personal details are identifiable (which has been completed), then both the policing and academic elements of the research will comply with GDPR. Those involved in organised crime are often violent and by default the illegal nature of their activities means they have no legal constraints should they wish to register their displeasure regarding the nature of my research. Previous status as COLP employee gives some additional protection on this front as historically organised criminals (excluding some well publicised examples in Italy, such as the Capaci bombings which targeted prosecutors Giovanni Falcone and

Paolo Borsellino) (The local 2019) tend to avoid direct confrontation with law enforcement as it is bad for business.

Data access issues

Several issues were faced when it came to accessing the intelligence data needed to complete the research, though luckily one hurdle that was not needed to climb was vetting as due to previous employment within the Economic Crime Directorate City of London Police the author was already vetted to SC/MV level, which allowed to access OCG intelligence without further checks which could have added 3 months to the research timetable. Other challenges included the complexity of the release process and ensuring it was suitably sanitised for public access.

COLP information sharing structure

It is worth briefly explaining how COLP specifically and policing more broadly shares information. Broadly speaking, all information relating to policing is held on a number of servers, access to the information held on those servers is generally restricted via organisation and role. The main point here is that, despite film portrayals to the contrary, there is not one system that holds all the information relating to organised crime that can be accessed by someone with a police email address, access is restricted and compartmentalised. So, in relation to the case study methodologies, direct access to investigative documents without first approaching the relevant departments or agencies was not possible. However, employment at COLP was of huge benefit in opening doors to accessing relevant case information, being inside the organisation enabled me to speak with the relevant individuals and negotiate access from the relevant people at much more expedient rate. Having a police email ensured a quick response and then often it was a case of a phone call or face to face meeting to confirm which elements of which cases were available for academic access.

Risk of live trialling U BATTLE

The issue of whether to attempt a trial on live cases was a thorny one and before the decision was taken to do so, risks and benefits were balanced. On the one hand it adds valuable operational expertise to the research which is the best way to see how something works in a real setting is to test it in a real setting. However, on the other hand, these are real cases with real victims and if the tools do not work as expected there will be real world consequences. This is mitigated by the fact that techniques are being added to the arsenal of a detective or analyst and that should they prove ineffective they are in no worse a position than before and can carry on the investigation using existing tools.

Looking back, a narrowing-down of the focus of my research into a specific element of organised criminality would have perhaps been beneficial as if, for example, only drug trafficking OCGs were analysed, it would have substantially deepened the evidence base relating to U BATTLE's effectiveness on specific crime types. There is potentially a risk that by trying to create a tool that is applicable to all facets of organised crime, and thus have a wider impact on changing the way organised crime is investigated as a whole, has resulted in me spreading myself too thinly. This was mitigated by several reasons, the first being City of London's national fraud responsibilities meant there were several fraud OCG investigations that were relatively easily available for research purposes. Contacts were formed organically at conferences and other events with the IPO and subsequently West Midlands Police and SEROCU. The choice case studies was partly based on criteria (complex, sophisticated and multi criminality) but partly based on what was available to share at the time- which itself is based on numerous factors including the state of current

investigations, the sources of the intelligence, the use of police tactics within the investigation, and the likelihood of an appeal if the case went to court. Should the research have focussed on one type of criminality the number of cases available would have dropped significantly, which would have impacted negatively on the research. Additionally, the central plank of the research is it is the method of OCG operation that is important and can be analysed (i.e. that OCGs operate in a similar way to businesses) which by extension means that the nature of the commodity is less important.

Ethics

"Integrity has no need of rules." (Albert Camus 1942) Camus, a French Philosopher and Nobel prize winner, argues that providing that you do what you believe is right, there is no need for a formalised ethical structure, as you will have always acted correctly. While this does not take into account the minds of those psychologically damaged, or those (for example children) whose minds are not fully cognitively developed, this school of thought seems like a logical conclusion, however from that it is also easy to understand the reason why humans have evolved to operate in such a myriad of ethical constraints.

Ethical considerations have been paramount when undertaking this research, LJMU ethics training on canvas has been completed and the research has been cleared by the Research Ethics committee via the chair's comments mechanism (LJMU 2018). Approximately 20 semi structured interviews with experts in numerous facets of organised crime, policing, academia, and business analysis have been conducted either face-to-face or via phone. Each interview lasted an average of 30 minutes, though some were significantly shorter and some longer. Some of the questions were standardised for all interviewees, and some were tailored to their individual expertise. Specifically, the questions will relate to the concept of the research and any potential operational benefits that could be achieved from its use. The interviews were recorded, summarised, and analysed for research purposes. The contact details of those interviewed were generated organically, mainly though attendance at conferences and other events where I spoke to policing professionals about my research. Following a conversation, the researcher was given contact details of the recipient and then a formal approach was made in adherence to LJMU policy. The people being interviewed and surveyed were all professionals of sound mind and not classified as vulnerable. Following recording transcripts were stored securely LJMU M drive. The remainder of documentation relating to the interviews was secured on secure COLP servers.

An online survey was sent out to members of all ten Regional Organised Crime Units (ROCU) in the UK, whose remit as their name suggests is to investigate organised crime that is impacting at a regional level. The recipients are detectives and analysts. The South East ROCU acted as a gatekeeper for access to the required email addresses and also sent round the email explaining the research aims which had the link to complete the survey. A participant information sheet was emailed to participants prior to them agreeing to the interview. This information was also available on the survey platform prior to undertaking the survey. All participants were adults, informed consent was obtained. Once they had participated in the research, survey recipients could email the researcher Is able to provide a copy of their survey, participants will also be encouraged to make their own copies. Interview participants will be able to access recordings should they wish to do so. Interview participants were given a response date in the initial email, this was ten working days. The nature of online surveys means participants can decide to take part or not, until the survey is closed.

For the interviews, the number of logically achievable participants was balanced against the number that was needed in order to draw significant conclusions. 20 interviews were conducted. The survey was conducted in a very niche field (organised crime investigators) so after discussion with supervisors 50 was deemed to be achievable, anything over that is a bonus. In the end the numbers were significantly lower than that- this will be discussed in more detail in the survey section. All participants were specifically selected for their knowledge of policing and organised crime investigation. Recording devices were password protected and transferred from the device and onto secure servers maintained by City of London Police/LJMU once the interview was concluded, the data was be deleted from the device. The survey platform is a secure site, and only accessed via the researcher meaning all data will remain confidential, however as a precaution no personally identifiable data will be requested.

Some criticism was received for potentially overselling the benefits of the research during the ethics application phase and in so doing potentially making those who have been approached unwilling to refuse a request. The main sticking point was I the phrasing that "benefits to policing overall could be substantial as it is hoped the research will inform the development of a toolkit of business analysis techniques which can be used by detectives and analysts to apply to intelligence data on a OCG and better inform the process of creating investigative strategies." This is a genuinely held belief and one supported by numerous experts in policing that have been contacted over the course of this research, it has been the stated aim of the research since its instigation. It is the researcher's considered opinion that an aim to improve policing would not put pressure on potential recipients to engage with the particularly as it is explicitly stated that any participation is voluntary. Security clearance while a huge advantage, does not give me carte blanche access, specifically it does not grant me access to intelligence graded above official or that gathered by confidential means. A further restriction is the understandable reluctance from police to disclose specific tactics used in OCG investigations. While from an ongoing operational perspective (not wanting criminals to become aware of the tactics police use against them) this makes sense, from the point of view of improving the investigative strategies which make use of these tactics, not having access to the details about how these tactics are used is rather restrictive. A conversation with a senior officer from City of London Police summed up the situation rather succinctly "you can't have the keys to the warehouse, but we can give you enough to work with".

As referenced in the operational chapter, the doomed to success theory, is worthy of consideration here, this essentially notes that the more time and resources an organisation devotes to a project the more likely it is to be classed as a success because the organisation does not wish to be seen to having wasted resources. In reality, this can only be mitigated by conducting continuous progress assessments in a manner as unbiased as possible and being honest when the time comes to conclude the research. The ethics of creating and trialling methodologies invented by myself, must also be discussed, the issues regarding bias will be dealt with in the methodology chapter. Ethically speaking, in modern scientific context innovation is welcomed. President Franklin Roosevelt (Oglethorpe University Address, The New Deal' 1932) said "It is common sense to take a method and try it. If it fails, admit it frankly and try another. But above all, try something". If humanity as a whole did not take risks in doing what has not been done before, then we would still be hunting with spears and living in caves. It was Tim Hartford (2012) an economist and author said "Accepting trial and error means accepting error", if you wish to progress then you must try something new, which by definition means moving away from tried and tested methods. In this case to mitigate the risk, the new creation, the subsequent manual adaptions to the U BATTLE questions were initiated following the survey, interview and feedback methodologies, creating a 'feedback loop' that ensured

any changes the author made manually were then examined by one of the aforementioned independent methodologies, to ensure development in a rational and unbiased manner.

Unfortunately, the OCAI, by dint of its role to preselect certain qualities within business analysis techniques that would be applicable to organised crime, was not able to be trialled in the same formal manner. It was, however, shown informally to select individuals at both LJMU and COLP, and then retrospectively assessed during several of the earlier semi-structured interviews. The lack of formal trial for the OCAI, which underpins the rational for the U BATTLE questions is a risk, but one which was unavoidable and which through the aforementioned multi methodology feedback loop, the utmost has been done to maintain methodological integrity.

This chapter has outlined a personal, professional and philosophical approach to ethics, justifying their existence, while critiquing their implementation. It also detailed the steps that were taken to ensure ethical compliance and some of the challenges that impact research so closely involved with live data and those who operate outside the law. Furthermore, it gave an objective discourse to the risks that are present when writing about a subject such as organised crime and how they can be mitigated.

Challenges and strengths surrounding interview method

The semi-structured interviews were the main methodology. The majority of these were conducted over a three-month period in 2019. The semi-structured element allowed the flexibility to change the questioning to suit the expertise of the interviewee, but also to keep a sense of continuity throughout the interviews by asking the same core set of questions. As the survey gathered responses from analysts, the interviews focused on a different audience, individuals with organised crime expertise, in order to conduct a holistic research approach. These individuals notably included senior police officers, academics and those with first-hand experience of OCGs. The interviewees were selected using the author's own knowledge of organised crime and how it is policed and the interviewee's own expertise in their particular field; some interviewees were known to the author in a professional capacity prior to the interview. The interviews varied substantially in length depending on circumstances. One interviewee, a detective inspector specialising in organised crime, spoke for more than hour, going through the U BATTLE toolkit point by point and detailing how it could be applied to an OCG. Other interviews were secured in the minutes between sessions at conferences and so, by necessity, are substantially shorter. In an ideal world there would have been an unlimited time frame for each interview, but unfortunately given the interviews were policing professionals there was usually a set time allocated for the interview which was around 30 minutes.

One challenge was around knowing where to draw the line in terms of interviewee numbers, for reasons of logistics and time management, as well as word count constraints, as it was often the case that interviewees would suggest a colleague or colleagues who could have added insight into the project. Ultimately a line had to be drawn or else the research would never have been completed. So after reaching the agreed number of interviewees, further requests were ceased. On the whole, 95% of those on the original list were spoken to and every interviewee gave their own unique insight. The only hindrance was breaking into the 'confi' police slang for confidential world. Confi teams are groups of heavily vetted detectives who deal with issues surrounding intelligence that has been sensitively or covertly obtained. The insight from this group would have been welcomed in this research as one of the potential uses identified was the placement of CHIS's. A meeting was obtained with a representative of the COLP confi team, but it was cancelled on arrival

due to operational reasons. These operational difficulties and failing to gain a reply from *McMafia* author Mischa Glenny after attending one of his talks, are among the only instances where interview requests were made, and also rebuffed.

Because of the policing credentials the author held during the majority of the research period, unlike most academics the challenge of trying to convince people to speak did not occur. Instead, the challenge was ensuring that what they said didn't either identify them inadvertently or divulge information around sensitive tactics or knowledge of OCGs. The addition of policing credentials helped penetrate a network that even by the standards of policing is difficult to enter partly due to the traditional reluctance to engage and partly due to the sensitive nature of the work meaning their activities are not advertised). The route in to the ROCUs materialised after the author met the National ROCU Coordinator at a conference, several follow up conversations were then held, and an agreement was made to forward a request for cooperation to each of the ROCUs, following a combination of a positive response from the SEROCU and my location in the South East of England, SEROCU was identified as a partner. Contact was then made with the head of SEROCU and subsequently their strategic intelligence manager, who remained my point of contact throughout the research and also facilitated live cases access (See Rapture case study). The survey was distributed to the ROCU network via the South East ROCU Strategic Intelligence Manager. It was sent to 9 ROCU inboxes and the MPS one, there were 34 individuals on the distribution list, 15 of which were from SEROCU (heads of capability and all analysts) who then were asked to distribute within their teams. Therefore, for this reason, it was difficult to ascertain a precise number of recipients and therefore calculate the percentage of those who took the time to complete the survey. Of the 16 respondents, 3 had investigative role and the remaining 13 were involved in research and analysis (81%). Given that all survey results were positive, the endorsement from the OCG analyst community adds real value to the veracity of the research, its core concept, and the practical implications of it.

The main purpose of initiating the survey was to add numerical rigour to a heavily word-based analytical project, in that sense the survey, as well as providing some detailed written feedback, it has, despite sampling issues which will be explored below, been a success overall. Research (Survey Anyplace 2019) indicates that surveys which have been distributed internally (i.e. to employees) tend to have a much higher response rate than those distributed to external audiences (i.e. customers). Internal surveys will generally receive a 20% response rate (or more) on average, compared to the average of 10-15% response rate for external surveys. Prior to this survey being sent out, a response rate somewhere between the two was anticipated; this was based on the fact that while the author was not strictly internal to the ROCU, my gatekeeper access and policing credentials give me some credibility within the organisation. Given that it is impossible to accurately predict the number of people who received the survey, it also follows that any attempt to gauge the percentage of those who went on to complete the survey will be wildly inaccurate. Therefore, after careful consideration, it was decided that this calculation should not be made as no real value could be placed on any results. This section has outlined the key elements within the project methodology and offered an anticipatory critique of the methodological process. It has also critically considered several issues associated with research utilising live intelligence data, and research conducted in cooperation with the police, as well as providing a solid understanding of the 'how' elements of the research. This was necessary to complete before continuing onto the following sections of this chapter which deal with the execution of the various strands and the results gleaned from that.

Reflexive process

Looking back, while it is a thorough belief that the thesis has been a success and has contributed significantly to the existing evidence base in organised crime investigation, there are undoubtedly several things that could be changed should the project begin afresh. There are also several elements of the research which worked well.

Research strengths

The cooperation with City of London Police has been incredibly beneficial, the access to intelligence and information this has provided has been invaluable, as has the vetting level accompanied with the role. This gave me the required authority to view documents up to official level. The use of police email address has facilitated contact with other police forces and law enforcement agencies for both interview and case study purposes that an academic email address would almost certainly not have provided. The use of COLP servers to store case studies was also useful because it put other partners such as the IPO and Police Scotland at ease as they could release the data for academic purposes, but it would not leave law enforcement servers. Police credentials have also enabled direct access to senior police decision makers at conferences both in the UK and abroad. During earlier stages of the research preliminary results from my case studies, along with the research concept, were presented at numerous policing conferences including the National Intelligence Conference, the Internet Intelligence and Investigations conference, SOCEX strategic intelligence conference and the International Conference on Transnational Organised Crime and Terrorism. Later on, the research findings were presented directly to policing leaders via the same forum.

The author spent three months embedded with the Office of Security and Counter Terrorism Research and Analysis Unit, situated within the Home Office demonstrating the feasibility of the research concept. This contract furthered e a deeper understanding of policy and the processes that is needed to take the U BATTLE research from a concept to an operational reality. The flexibility LJMU offered in terms of completing the research on a full-time distance learning basis was hugely beneficial as it enabled a to balance my commitments with City of London Police. Moreover, there have been associated benefits to having done the research with them, something that had a relocation to Merseyside been required in order to complete the PhD would not have been possible. Without wishing to identify interviewees, policing credentials have enabled access to a top tier organised crime investigators and senior law enforcement figures. These credentials have also helped to secure interviews with respondents in a timeframe and candidness that would unlikely to have been possible with purely academic credentials.

Research learning points

The converse of all the benefits that cooperation with COLP provided is the difficulty in aligning the goals of LJMU from an academic perspective with the goals of COLP as a police force. The importance of being able access to the views of the ROCU investigators and analysts, whose role is to assess and disrupt organised crime, even with the limitations surrounding the logistics of the survey methodology, cannot be underestimated. The opportunity to gauge both the research potential and pitfalls was highly valuable and has ultimately facilitated the conclusion that the majority of researchers and analysts within the ROCU network believe there will be some benefit to implementing the U BATTLE toolkit. With hindsight, more clarity should have been sought around the distribution list. It was requested in discussions with the gatekeeper the survey should be sent out to all ROCUs nationally and they duly obliged. However, it was anticipated the survey would go to go to the individual inboxes of each ROCU member whereas, in reality, it was sent to some

individuals and a large number of regional intelligence bureau inboxes which are controlled by each ROCU. The email did request that it be forwarded to individuals, however the actual forwarding was outside the control of both myself and the gatekeeper. Due to high demand from their day to day roles it is possible this did not occur, which would go some way to explaining the low response rate.

Due to the secretive nature of the units and the roles of the individuals it was a deliberate policy not no request specific details surrounding which ROCU, which team and the specific role of respondents. The theory behind this was that the lack of personal details would encourage honest response and boost response numbers, as there is often a certain reluctance to comment on current processes and potential improvements when you can be identified for fear of incurring the displeasure of senior managers. In this case, this measure appears to have been somewhat successful, as although the sample size was not as large as first hoped, the quality of submissions was high and respondents were refreshingly honest (and positive) in terms of the potential value of the research and its application specifically around the U BATTLE toolkit, as well as where such a toolkit could sit in the investigation process and potential improvements to the draft version which was shown to them.

Given the number of respondents, an argument could have been made for expanding the opening window for the survey (which was set at 2 weeks) for a further period but given the previously outlined flaws with the survey distribution method the decision was made not to do so. A further option could have been expanding the audience of the survey's from ROCUs to a wider policing audience, sending out the survey to COLP colleagues would not have been an issue in terms of the legitimacy of access and the COLP email system allows users to send emails to specific users, ie: members of the Insurance Fraud, or cybercrime units. In the end the decision was made not to supplement the sample size for two reasons. Firstly, given the other methodologies that are being employed It was concluded it would be prudent to avoid 'drowning in data'. Secondly, the survey was very much the most supplementary of three subsets methodologies employed (the main two being the 23 semi structured interviews and the trailing of various iterations of U BATTLE on historical and live cases).

The author's historic knowledge of analysis processes, whether consciously or not, influences the direction of the research. In this case, having knowledge of the current processes around intelligence analysis and organised crime investigation meant that a natural urge to provide a solution developed. It is this balance between proving the academic accuracy of the research concept and making a tangible difference in policing that is vitally important in a project such as this, and an area where vigilance must be employed to ensure the later does not impede the former. The converse of all the benefits that my role with COLP provided is the difficulty in aligning the goals of LJMU, from an academic point of view, with the goals of COLP, as a police force. The three-year timeline for a PhD allows for sufficient time to drill down deeply into an issue. In this case, I was drilling down into the theory behind the development of the U BATTLE toolkit, the methodology behind its development, and testing it on numerous historical live case studies, and providing critical feedback from a large number of policing professionals. This is a particular advantage that academia has over policing, where in general the theory of an issue is of less importance to police investigators, who ultimately just want something that will improve their investigation and are less interested in the evidence base and theory behind it. In general, policing is used to working to much shorter timeframes so convincing them to invest in research that could be of operational value in several years' time was quite a challenge.

Ethical alignment was also a challenge. The policing side of my research created numerous hurdles (addressed in ethics and risks chapter) that had to be addressed in my submission to the LJMU Research Ethics Committee.

While the concept that organised crime mimics big businesses has received more and more traction in recent years, the specific idea of applying business analysis techniques to the police intelligence on organised crime groups is a sub strand of this that is very much in its infancy. As it stands, the research conducted leads the author to believe that only Kenneth Murray, from Police Scotland (Project Jackal 2019)-, alongside myself, are conducting detailed analysis into this area. Murray has used forensic accountancy techniques to examine the financial spine of OCGs and a UNODC OCG business disruptions publication. This was written around 2014 and is only available in hard copy (UNODC 2014). The scale and resources devoted to U BATTLE, despite being far from perfect, is unparalleled in law enforcement in the fact that academic and law enforcement cooperation has facilitated this into a full-time job for three years. The benefits of this type of cooperation are substantial and should be considered on a much wider basis than they are now. From an academic point of view, the research has generated a lot of interest from within law enforcement, who, in general, have been generous with their time and resources. This has led to consideration of the wider implications of collaboration between policing and academia. There should be jointly funded scholarships in place which would allow academia to focus on real world priorities that the police do not have the time to deep dive into, thus improving policing. The cooperation between the two parties makes academic work better as it facilitates access and contacts that, unless you already have a policing background, are hard to come by. These could be available as secondments to early or mid-career researchers.

Should the focus have been narrowed to centre down on one type of criminality, the number of cases available to me would have dropped significantly, which would have impacted negatively on the research. Additionally, the central plank of the research is that it is the method of operation which is important and can be analysed (i.e. that OCGs operate in a similar way to businesses). By extension, this means that the nature of the commodity is less important. However, there are some notable caveats to that which will be explored in another section. The question about whether to have created different versions of U BATTLE for different criminalities is one that has weighed heavily throughout. On the one hand, the idea of identifying specific adapted business analysis techniques that worked on an OCG involved in gun smuggling for example, but not auto theft, would in principle this would be much more efficient. However, ultimately this would be outside the scope of the research and in this case the reality does not match up to the ideal. In the time and access provided, it was deemed impractical to try and create sub versions of U BATTLE and, as mentioned above, it would have diversified from the key principle that the similarities to legitimate businesses, rather than the commodities in question, are the key factors when it comes to enhancing the analysis of OCGs. Splitting based on criminality also runs into thorny issue of definition of organised criminality, an issue which numerous PhDs have been devoted to without resolution. In the end, the question of how to split the criminality, combined with aforementioned issue of trialling the split versions on numerous cases of differing criminalities, meant that it was decided one version of U BATTLE focussing on all facets of criminality would be the most appropriate.

Learning points from application to live and historical cases

This research attempts to span the entire field of organised criminality, as well as be applicable to full the spectrum of law enforcement tasked with analysing and investigating it. The broad nature of this approach has both advantages and disadvantages. Organised Crime acts as a business, whether the commodity is cocaine coffee or cannabis. When examined through a business lens, the commodity becomes less relevant. However, ensuring the questions are relevant to OCGs involved in such diverse activities, such as fraud, drug smuggling and counterfeiting, has been a challenge and, as aforementioned, serious consideration was given to splitting U BATTLE into criminal categories. The concept that both individual units and whole agencies often work in a siloed, mentality with both intra- and inter- agency cooperation at a minimal, is not a new one (Lemieux 2010), nor will it be particularly revolutionary for anyone who has worked within the policing sphere. None the less, it is worth mentioning here as the sharing of information is key to the success of any intelligence tool, and the concept developed in this research is no exception. Consequently, the continued separation of intelligence is a hindrance to strategy development tools such as U BATTLE, as one piece of information hidden within the database of another agency could be crucial in identifying knowledge of an OCG that could ultimately help dismantle it.

Another learning point is in relation to the paucity of analysts, in the current policing climate analysts are a scarce resource. Within the NCA, there is no process for allocation of a specific case to a specific analyst (NCA debrief 2019) meaning often an analyst is drafted in at the last minute to assess the situation rather than being assigned to the case from the beginning. Within other forces, often two or three analysts are responsible for assessing an entire force's selection of OCGs. For example, one force in the midlands, visited by the author, covered a mix of urban and rural territories and had only two analysts responsible for classifying the 20 OCGs which were operating in the force. While the precise origins of the phrase 'The black hole between analyst and investigator' are ambiguous, it has been quoted in several interviews during the course of this research and in my opinion is an apt analysis. It identifies that the extent to which the role and responsibilities of the analyst and investigator in each individual force is by no means clear or consistent. In the long term, this is an issue which needs to be addressed to ensure effective implementation of any tool addressed specifically at strategy development. Given the points that have been made around the operational independence of police forces earlier on in this thesis, it will be no surprise to learn each force (as well as each ROCU and the NCA) operate differently, depending on its size, resources and organised criminal profile, the differing silos, politics and budgets. The way that they interlink consequently has an impact on any cohesive attempt to combat criminality.

Anecdote around investigative strategy

Furthermore, the reaction of laughter at a debrief meeting (NCA debrief 2019) that the author attended, relating to a review of an operation of an OCG involved in heroin importation, when the question of how the strategy was developed and whether it was formally constructed speaks volumes. This can be used as evidence to cement the view that investigative strategies are often either scribbled on scraps of paper or limited to a generic one line. While we must be respectful of the constraints that investigators work under, the lack of a formal process structuring the decision-making process is at best, an oversight, and at worst, alarming.

Learning points from data collection scenario

When this research began, when asked what I wanted out of this PhD the reply was always 'to change the world'. Looking back now, even with the successes I have had, this does seem laughably

naïve. The challenges of this are best illustrated with a short summary of my experiences working with a police force in the north of England. In April 2019, following the signature of a data protection agreement and a torturous approval process involving several face-to-face meetings and conference calls, I was invited to the Operational Control Centre to sanitise data relating to an OCG involved in producing and dealing drugs in an area of the main city. As the intelligence was in a raw format and relating to an active OCG, the material had to be fully anonymised at the OCC before it could be transferred to COLP servers and then analysed. Several issues occurred with this that with hindsight could have been better prepared for, both on my part and within the northern force. With regards to timeframe, my research budget only allowed me to spend two days in the force, this was swiftly reduced to one and a half, with IT access issues on the first day.

Secondly, the sheer scale of anonymising nearly 400 intelligence logs, which involves replacing each identifiable name dates of birth, location or vehicle with a coded name as well as deleting police specific information such as Niche references, mobile phone numbers or number plates, was not clear until I had accessed the logs for the first time upon my arrival to the OCC. I endeavoured to finish the sanitisation prior to catching my train, I managed to complete the initial sanitisation, but a quick review from the Force Intelligence Bureau suggested that contextual data would also have to be removed before the data could be released. This was due to the idea that the subject of the intelligence log could look at it and not realise it was referring to themselves.

Having had no formal sanitisation training, I was unaware of the contextual element and unfortunately, by the time it was pointed out time, constraints meant I was not in a position to finish sanitisation. Furthermore, because the data could not leave the northern force's servers until that process was complete, I was unable to complete the task on my trip. I was invited back to the Northern force to finish sanitisation, but issues with travel and accommodation budgets means this never occurred and, as a consequence, due to what amounted to less than £100 and some issues surrounding planning, I was never able to analyse this dataset.

State of the intelligence

The northern OCG was the first time I'd viewed intelligence logs in their raw format, exactly as they appear after they have been inputted onto force intelligence management systems. The logs I obtained from police Scotland had already been used for training by CEPOL officers so had already been anonymised and cleansed. Several things struck me about the state of the intelligence. Firstly was the unstructured granular nature of the individual logs and the lack of anything actionable that were contained in a portion of them (i.e. several contained reports of a known drug dealer visiting a Sainsbury's to do his weekly shop).Secondly, there was a distinct lack of detail surrounding the business side of the OCG. If officers were briefed to routinely collect intelligence surrounding the specifics of the business, financial, and environmental vulnerabilities of the group, then there would be much more data to complete a U BATTLE analysis and therefore this would better inform the development of investigative strategies. The logical extension of the above point is to work towards the production of such guidance and ensure its dissemination across forces.

The relevance of U BATTLE

While U BATTLE is prevalent throughout this thesis, in particular the interview and survey methodologies, and clearly provides an important bridge between the policing and academic elements, it is important to note by no means is it the core of the research. It is a means through which my research question- *To what extent can standard business analytical techniques be utilised*

in the investigation of organised crime groups by law enforcement agencies through their application to intelligence data?- Can be answered.

Its creation was necessary to allow the development of a firm evidence base to determine from a practical investigative standpoint the applicability of business analysis techniques to police intelligence on OCGs. The core concept of the research is, and will always be, that as organised crime operates as a business and as business analysis techniques have proven to be effective in a legitimate business context therefore they can be applied to gain investigative insights in a policing context. U BATTLE is simply a means to that end.

Chapter 4: Findings

A case study: The Organised Crime Applicability Index and its development into U BATTLE

This section explains the development process behind the Organised Crime Applicability Index (OCAI), a pre-methodology sorting tool designed by the author as a mechanism to assess the suitability of business analysis techniques to be transposed to organised crime investigation by giving a numerical ranking to the key questions contained within the techniques. These are then collated to provide an overall score which is used to determine the applicability of a technique for organised crime, and therefore whether the tool is suitable to move forward into the main research phase. This chapter will also assess the rationality and effectiveness behind using such a bespoke pre-methodology in comparison to other more established techniques and whether ultimately, due to the heavy reliance on the analyst (in this case the author instincts and training), the OCAI was designed with sufficient academic rigour to be of use.

Note I: Models such as Scanning Analysis, Response and Assessment (SARA), Market Analysis, Criminal Business Profile, Harm Matrix, the College of Policing Logic model and Sleipnir assessment tool are not including in this section as they are already in use by law enforcement at varying levels. Therefore, they have been explored in the literature review section.

Note II: Only a portion of business analysis techniques are suitable for application to an OCG. A major reason for this is while there are huge similarities between the operations of both groups, by dint of the illicit nature of their products and the corresponding lack of regulation that accompanies this, OCGs need not concern themselves with some elements that legitimate enterprises have to contend with, such as Human Resources, legal or ethical constraints and therefore elements of business analysis that refer to these factors are not relevant.

Underneath each technique a brief explanation of its applicability in an organised crime context (OCA) has been included. The nature of the research means this was a 'positive' review, i.e. the author did not record every technique discovered during this phase of research, only those that were deemed potentially useful. The rationale behind this was that during the research process techniques that are deemed to be totally unsuitable will not be included, while those which are identified to be potentially useful will be firstly analysed in greater detail through a methodology specifically created for this purpose (the OCAI), and only then then if applicable tested on OCG data.

Firstly, the point must be made that the techniques outlined throughout this paper are not meant to be taken in isolation, nor or are they supposed to replace other forms of criminal intelligence analysis, such as social network analysis, GIS analysis or OCG mapping. They are, instead, meant to be used in tandem, as an additional tool to enhance the understanding of the intelligence of a group through a business lens.

The contribution of business analysis pioneers, such as McKinsey (2018) and Porter (CGMA 2013), in this area, must be recognised as their work on the 7S' and five forces frameworks respectively were one of several building blocks for this research and their validity is not undermined by the adaptations included in this paper, but rather enhanced by the research done here.

An interview with a City of London Police Business Analyst (2018) gave a useful insight into the implementation of business analysis techniques, with the added insight of their application in a policing (albeit a non-crime) perspective. "Usually a business analyst would employ these sorts of techniques in a workshop scenario, essentially teasing out the answers from stakeholders within a company or brainstorming with a group of Business Analysts." Resource and capacity issues within

policing means this method is unlikely to be possible in an organised crime investigation context, and that these techniques are likely to be applied by a single analyst or detective. In an ideal world they would be performed by a team of analysts in a workshop setting, but from professional experience this is not a likely outcome, therefore unintentional bias must be guarded against.

Organised Crime Applicability (OCA)

The OCA criteria, an informal process was created based on the author's knowledge of how OCGs operate (learnt both professionally and academically), to act as a preliminary screening methodology for business analysis techniques. The idea was to assess conceptually the potential uses of any of the current methods, before they moved onto the full OCAI and then into the first version of U BATTLE.

Below is a list of business analysis techniques that had the OCA applied to them and the results. The results, which outline the applicability of these techniques in an organised crime context, substantially augment the conclusions made in the literature review and also in this chapter.

1) **7Cs of consulting** Mike Cope (CMI 2018) Each C (client, clarify, create, change, confirm, continue and close) represents an area of importance, they can run independently, jointly, or in parallel.

   OCA: By working out the areas of importance to an OCG, you can then devise a strategy to proactively target these areas.

2) **Ansoff Matrix** (CMI 2018) The Ansoff matrix allows marketers to consider ways to grow the business via existing and/or new products, in existing and/or new markets.

   OCA: By assessing where the next business opportunity is for an OCG you can put in places measures to counteract this.

3) **Boston Matrix** (CMI 2018) The Boston matrix, also known as the Boston Box or growth share matrix, is a tool for analysing a company's various products, services or business units.

   OCA: By determining the strengths and weaknesses of a OCGs products you can make a viable assumption of which areas to proactively target.

4) **Burke Litwin Model** (CMI 2018) Examines how the external environment can affect each component of an organisation.

   OCA: By focusing on the external operating environment of an OCG, you can determine factors that can be manipulated to disrupt OCG operations.

5) **Cost-benefit analysis** (CMI 2018) is a useful tool for measuring the expected benefits against expected costs. It can be used in a variety of different contexts such as products, services or projects.

   OCA: If you can assess the costs of an OCG moving into a certain area against the benefits of doing so and measured against their financial capital, you can both attempt to predict the group's next business move and then plan against it.

6) **Force Field analysis** (CMI 2018) an analytic tool for considering how forces for change might be intensified, or resistant forces might be weakened or reduced.

OCA: useful in determining the consequences of operational activity IE if by arresting one major player you may create a power vacuum.

7) **Hrebiniak strategy execution** (CMI 2018) the model provides a logical approach to implementing strategy.

OCA: Once all the information has been assessed this could be useful in developing a strategy to pursue and/or disrupt the OCG.

8) **Maslow's hierarchy of needs** (CMI 2018) a psychological tool (not strictly a business analysis technique) assessing the needs of human being.

OCA: Once you understand where a human being sits within this framework you can begin to determine how they may react in a certain situation and use that to your advantage in an operational sense.

9) **McKinsey's 7s framework** (CMI 2018) three hard factors and four soft factors that can help organisations to assess how well they are positioned for competitive advantage and growth.

OCA: If you can assess the financial and market dominance of an OCG you can calculate if they are likely to expand or contract that share in the near future.

10) **Programme Evaluation and Review Technique (PERT diagram)** (CMI 2018)- developed by the US Navy, it is a project management tool, which identifies tasks and sub tasks that need to be completed.

OCA: Useful in terms of breaking down the exact methodology required to dismantle a group.

11) **PEST/PESTLE/STEEPLE** (CMI 2018) a framework to help scan the macro-economic environment in which an organisation operates. Extended versions of the acronym include Environmental, Ethical, Legal or Legislative factors.

OCA: If you know the environment an OCG is operating in, you use those factors to your advantage when planning an operation.

12) **Porter's five forces** (CMI 2018): Michael Porter identified five factors affecting the competitive position of a company to help use the best strategy for their business they are:

The entry into the market of new competitors;

The threat of substitutes – similar competing products;

The bargaining power of buyers or customers;

The bargaining power of suppliers; and

The level of competition from existing competitors (competitive rivalry).

OCA: Through examining the mechanics of an OCG's business you can then identify and plan to exploit gaps that occur.

13) **Stakeholder analysis** (CMI 2018) Stakeholder analysis enables decision makers to assess the influence of individuals and groups who may help or hinder them in the achievement of their goals.

OCA: This process enhances the identification of key operators and processes within a group, once identified they can be targeted.

14) **SWOT analysis** (CMI 2018) SWOT stands for: Strengths, Weaknesses, Opportunities and Threats. The analysis involves asking questions designed to assess the organisation's capabilities, explore opportunities open to it and identify actual and potential threats to its success.

OCA: Identifying where the OCG is strong and where it is not, allows operations to be specifically targeted.

15) **Value chain analysis** (CMI 2018) shows how the value of an end product/service accumulates along the chain of organisational activities. It is a mechanism for identifying which of a company's activities create the greatest value.

OCA: Once you have mapped out the entire business chained and identified the most profitable areas, this information can be fed into the investigative strategy.

16) Heptalysis (PESTLE analysis 2018) this is a business analysis tool which you can use to run an elaborate analysis of early-stage businesses. It is based on the following categories:

Market Opportunity

Product or Solution

Execution plan

Financial engine

Human capital

Potential return

Margin of safety

OCA: Through mapping the precise resources an OCG has you can better assess the likelihood of the direction of their next business move.

17) CATWOE (PESTLE Analysis 2018 CATWOE is a business analysis tool which helps quick thinking about specific business aims. There are six important elements. CATWOE is an acronym of:

Customers

Actors

Transformation Process

Worldview

Owner

Environmental constraints

So, when conducting CATWOE, you will have to identify the beneficiaries of the business process. You will also have to find out how the issue can affect them.

OCA: When you know which OCG members will lose or benefit from a certain action you can plan an operation around their reactions.

18) **Criminal Business Analysis Matrix** (CBAM) (De Leon Ochoa 2014)

Split into four phases: Phase 1 establishing; Phase 2 Expanding Phase; 3 Consolidating Phase; 4 Positioning. The CBAM produces brief summaries of each criminal requirement and rate each sector as high medium or low.

OCA: This tool is incredibly useful in the way it breaks down the requirements of organised criminality and allows their vulnerabilities and strengths to be easily mapped and so reverse engineered, but from analytical point of view the low, medium, high ranking system is quite vague.

19) **Project Jackal Business Model Matrix** (Murray 2014)

The matrix can initially be used as a sorting box for relevant intelligence and analysed in terms of the principal characteristics associated with each box heading. For example, in respect of a straightforward drug trafficking process involving an OCG, the partners required to establish the business are in the far left box under Key Partners; the key activities of the group such as import, and distribution are under Key Activities; and the supply sources of the drugs are under Key Resources. On the right-hand side, the methods used to exercise discipline and maintain market share are grouped under Customer Relations; the warehousing and distribution networks accessed and used to generate the relevant sales revenues are grouped under Customer Channels; and the various end markets served are grouped under Customer Segments.

The box that requires a degree of analytical thought is Value Proposition. The challenge here is to bring together the information contained within the matrix in such a way that explains one basic thing: why is this group/network/process profitable.

OCA: It would apart from U BATTLE, Project Jackal is the only project that has developed operational processes build on analysis of techniques in legitimate business, because of this the author visited Mr Murray at Gartcosh Crime Campus in December 2018.

A detailed breakdown of Jackal, it's benefits, drawbacks and how its findings have been adapted (with full permission from Mr Murray) for U BATTLE can be found in the Literature review.

20) **Crime script analysis** (Vy Kim Thi Le ND**)** is a tool used to generate, organise and systematise knowledge about the procedural aspects and requirements of crime. It is a series of decisions and actions before, during and after the commission of a crime.

OCA: Another technique devoted to breaking down the requirements needed to commit a crime in order to assess vulnerabilities.

21) **The POLDAT Framework** Toolbook 2018) another, structure often used in business process re-engineering projects. This model develops documents, tables, matrices, graphs, models and organizes them in the following categories:

Process

Organization

Location

Data

Applications

Technology

OCA: Useful for putting findings into a format easily explained to non-analysts and finding weaknesses in process and operation that can be exploited.

22) **DEVIL'S ADVOCACY** (US Government March 2009)

Its primary value is to serve as a check on a dominant mind-set that can develop over time among even the best analysts who have followed an issue and formed strong consensus that there is only one way of looking at their issue. This mind-set phenomenon makes it more likely that contradictory evidence is dismissed or not given proper weight or consideration.

OCA: Probably the oldest technique here by some considerable margin, and certainly not unique in being used in business, but the concept of putting one's feet in an OCG's shoes is useful nonetheless.

23) **STEMPLES** (quick wins for busy analysts) this technique is built on a similar basis to PESTLE/PEST, but with the additions of security.

OCA: Security is a key function for OCGs both internal to the group and externally through its business dealings. Assessing this is therefore a useful addition.

24) **Cone of Plausibility** (Government office for science 2009)

The Cone of Plausibility allows the generation of a range of plausible scenarios that describe how a subject area may look after a given timeframe. It provides a clear audit trail to explain how they are reached. Generating key drivers relating to a subject area (without generating scenarios) can provide you with useful insights about what factors are the most important in shaping the future.

OCA: This is useful during the operational planning stage, as it enables law enforcement to scenario plan all the possible options that will occur after an event and therefore set in motion plans to adapt to this.

25) **Facilitating factors**: (Eck and Clarke 2013) these include both the physical conditions of the immediate situations in which the offenses occur and the wider social arrangements that make the crime possible. The idea is to focus on those conditions that are potentially modifiable and less on the ones that are not.

OCA: knowing what you can and can't change is useful when planning an operational, this tool enables you to quickly assess which factors are beyond your control.

Conclusions

The above techniques demonstrate the applicability of this papers' central argument conceptually. It highlights, without the application of case studies which will come later, that there is scope for the reverse engineering process of these models. It also highlights that it is possible to take these techniques designed for use on legitimate enterprises and apply them in an organised crime context.

From OCA to OCAI

The rationale behind moving from 25 techniques that had their OCA assessed to the 15 techniques that went through the OCAI methodology was a simple duplication analysis. With hindsight, it would have been beneficial to have conducted this duplication analysis in a written format rather than, as did occur, a manual trawl of a printed version of the techniques that had their OCA assessed to spot those techniques with similarities to others. The rationale behind this is from personal experience it is often easier to spot errors or duplications on paper than on a screen.

V1 of U BATTLE then applied business analysis techniques as they were (in sections for ease of analysis) then they were continuously adapted from there. The aim of the OCAI was to create a rigid assessment framework to analyse the relevance of the core questions within business analysis technique, devising a method to determine the extent to which they could be transposed from a legitimate to illegitimate criminal context. Essentially, it was a methodology designed to ensure rigour in a process that would otherwise be susceptible to biases.

Organised Crime Applicability Index (OCAI)

The OCAI determines what legitimate factors do these techniques highlight that can be translated into organised crime investigation. A ranking system has been used to classify the applicability of the technique to the organised crime investigation. In this case, the code of colours: red, amber, and green, have been used. If the colour of the box is red this denotes the facet of the technique is not effective in an organised crime investigation context, Amber that the facet is moderately applicable, and Green is very applicable. A scoring system was devised in order to further categorise the effectiveness of specific techniques and if they should be included in the first version of the toolkit. A mark in the red category is worth 0 points, amber 5 and green 10. Any technique scoring more than 30 was deemed suitable to move to the case study trial section of the methodology.

10. Resources: mapping the precise resources an OCG has you can better assess the likelihood of the direction of their next business move.

11. People: When you know which OCG members will lose or benefit from a certain action you can plan an operation around their reactions.

12. Requirements of organised criminality.

13. Mapping the external environment, Political social etc.

14. Mapping the internal environment – the market it operates in.

Organised Crime Applicability Index

OCAI Factor	Red	Amber	Green		
Resources: mapping the precise resources an OCG					
People: When you know which OCG members will lose or benefit from a certain action					
requirements of organised criminality					
Mapping the external environment					
Mapping the internal environment					
Total score				Total points	

One issue with creating one's own methodologies is of course bias. Looking back following the application of the OCAI. Another issue is with that the cumulative scoring mechanism, while sufficient for creating an overall applicability of a specific technique and does add a deeper layer of analysis, the individual element scores of the OCAI are more use from a OCG development

perspective, as ultimately though the entire techniques were trialled first it was specific key questions that were pulled out. With hindsight the OCAI seems a circuitous way of getting to that point, however also with hindsight I am unable to see another way forward.

The original idea was to give each OCG an OCAI ranking and compare the results against a Master sheet of OCAI'd business analysis techniques to determine the best techniques to apply to an OCG that exhibits certain qualities. These techniques are ranked below. Although helpful, this idea was dropped following the first case when it was realised that business analysis techniques cannot be wholly transposed and must be adapted. Another idea was to create a model OCAI for the main categories of criminal activities, i.e. a group of techniques that would be suitable to assess an OCG involved in drugs, another group that would be suitable for OCGs involved in cyber activities and another for OCGs involved in money laundering. This idea was dropped because it was realised that to ensure an accurate evidence base for these separate groups of techniques, large numbers of cases for each crime type would have to be analysed, which given both the time constraints and the access constraints previously identified, just wasn't doable. This approach was also rejected because in employing it, one would have to go against the core concept of the research, because if the evidence suggested that the OCGs are operating like businesses, and therefore we can use business analysis to defeat them, the logical extension of this is that creating questions relevant to the specific nature of the criminal activities is less important than creating questions around the business based similarities of these groups' operation.

Organised Crime Applicability Index (OCAI) for 15 techniques

The OCAI identifies which key questions these business analysis techniques highlight that can be translated into organised crime investigation. The five factors below have been created through a study and categorisation of business analysis techniques and the application of the author's own knowledge of OCGs

15. **Resources:** By mapping the precise resources an OCG has, you can better assess the likelihood of the direction of their next business move.

16. **People:** When you know which OCG members will lose or benefit from a certain action, then you can plan an operation around their reactions.

17. **Requirements of organised criminality:** Once you have assessed the elements needed to commit a certain crime, then you can plan to ensure the OCG does not acquire those elements.

18. **Mapping the external environment (political, social, etc):**, Knowing the environment allows these elements to be factored into operational planning.

19. **Mapping the internal environment**: Awareness of the market an OCG operates in aids operational planning.

Note: OCA= Organised Crime Applicability

7Cs of consulting Mike Cope (CMI 2018) each 'C' represents an area of importance. These seven Cs are as follows: Client, Clarify, Create, Change, Confirm, Continue, and Close; and within the framework, they can run independently, jointly, or in parallel.

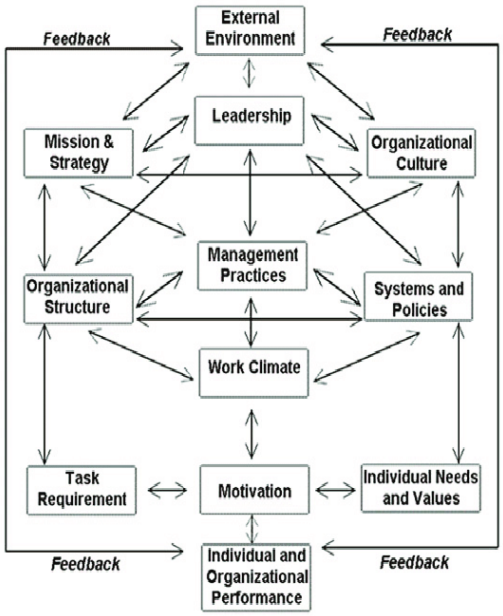
The Seven Cs of Consulting	
Client	Understand the person and the problem – what is required from the assignment, and understand the client's real and perceived view?
Clarify	Find out what is really going on – what is the nature of the problem being addressed and the scope of the challenge being attempted?
Create	Build the best possible solution – the consultant needs to develop the plan of action needed.
Change	Make it happen – the consultant must attempt to understand the drivers of the change.
Confirm	Make sure that it has happened – once the actions have been taken, the consultant should follow-up and confirm the change has taken place and looks like the success envisaged.
Continue	Make the change stick – ensuring that the changes continue.
Close	Close the engagement but continue the relationship – ensure that the client is fully aware of the final outcomes, added value, new learning, and potential future requirements.

(Slideshare 2020)

OCA: By working out the areas of importance to an OCG, you can then devise a strategy to proactively target these areas.

OCAI Factor	Red	Amber	Green		
Resources: mapping the precise resources an OCG					
People: When you know which OCG members will lose or benefit from a certain action					
The requirements of organised criminality					
Mapping the external environment					
Mapping the internal environment					
Total score					
				Total points	35

Burke Litwin Model (CMI 2018) Examines how the external environment, can affect each component of an organisation.



Burke Litwin change model (2015)

OCA: By focusing on the external operating environment of an OCG, you can determine factors that can be manipulated to disrupt OCG operations.

OCAI Factor	Red	Amber	Green		
Resources: mapping the precise resources an OCG					
People: When you know which OCG members will lose or benefit from a certain action					
The requirements of organised criminality					
Mapping the external environment					
Mapping the internal environment					
Total score				Total points	30

Cost-benefit analysis (CMI 2018) is a useful tool for measuring the expected benefits against expected costs. It can be used in a variety of different contexts such as products, services, or projects.

Project Title						
Author			**Date**		**Version**	
Basic Cost Benefit Analysis Chart						
Proposed action / alternative	Benefits	Benefit impact (high=3 medium=2 low=1	Costs	Costs impact (high=3 medium=2 low=1)	Benefits/costs ratio	Ranking

Smartsheet (2019)

OCA: if you can assess the costs of an OCG moving into a certain area against the benefits of doing so and measured against their financial capital, you can both attempt to predict the group's next business move and then plan against it.

OCAI Factor	Red	Amber	Green		
Resources: mapping the precise resources an OCG					
People: When you know which OCG members will lose or benefit from a certain action					
The requirements of organised criminality					
Mapping the external environment					
Mapping the internal environment					
Total score				Total points	30

McKinsey's 7s framework (CMI 2018) three hard factors and four soft factors that can help organisations to assess how well they are positioned for competitive advantage and growth. The three hard factors are: Structure, Strategy, and System; the four soft factors are: Shared value, Staff, Style, and Skill. These can be understood as follows:

McKinsey Seven S Tool:			
The 3 hard S		**The 4 hard S**	
Structure	• What is the organisational form? • How do the various business units align themselves? • How do the various business units communicate and coordinate activities? • Is decision making centralized or decentralized?	**Shared value**	• What are the core values of the people in the organisation? • What is the team culture?
Strategy	• What is the strategy? • What is the plan of action to achieve the objectives? • How does the company deal with competitive pressure? • How does the company deal with the changes in customer demands?	**Staff**	• What is the staff profiles? • What positions are represented within the team? • What positions need to be filled?
System	• What are the main systems used by the organisation? • How are those systems managed?	**Style**	• What is the top management style? • Is there a real team spirit within the organisation? • Do employees tend to be competitive or cooperative? • Is there efficient communications between the different teams?
		Skill	• What are the key skills represented within the company/team? • What are the skills requirements? • Are there any skills gaps? • How are skills monitored and assessed?

Pinterest (2018) McKinsey's 7

OCA: If you can assess the financial and market dominance of an OCG you can calculate if they are likely to expand or contract that share in the near future.

OCAI Factor	Red	Amber	Green		
Resources: mapping the precise resources an OCG					
People: When you know which OCG members will lose or benefit from a certain action					
The requirements of organised criminality					
Mapping the external environment					
Mapping the internal environment					
Total score				Total points	45

PEST/PESTLE/STEEPLE (CMI 2018) a framework to help scan the macro-economic environment in which an organisation operates. Extended versions of the acronym include Environmental, Ethical, Legal or Legislative factors.

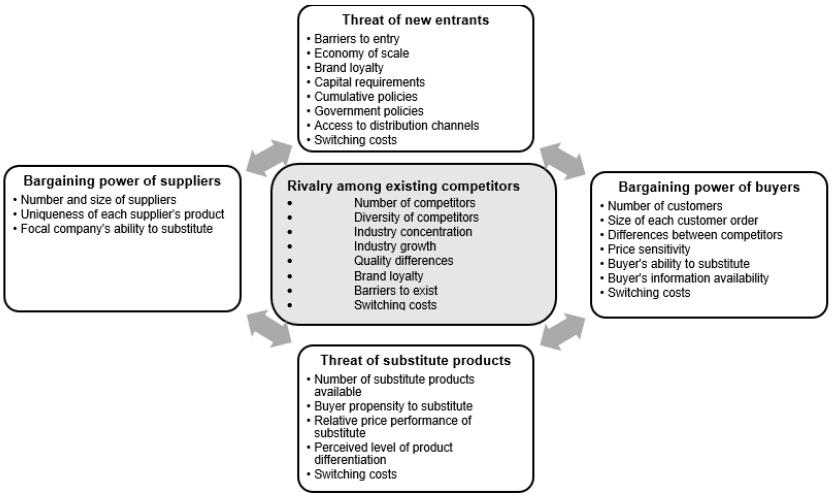
PESTLE ANALYSIS		
Political	**Economic**	**Social**
Technological	**Environmental**	**Legal**

Pestle analysis (2018)

OCA: If you know the environment an OCG is operating in, you use those factors to your advantage when planning an operation

OCAI Factor	Red	Amber	Green		
Resources: mapping the precise resources an OCG					
People: When you know which OCG members will lose or benefit from a certain action					
The requirements of organised criminality					
Mapping the external environment					
Mapping the internal environment					
Total score				Total points	35

Porter's five forces (CMI 2018): Michael Porter identified five factors affecting the competitive position of a company to help use the best strategy for their business they are:



Business to you (2019)

OCA: Through examining the mechanics of an OCG's business you can then identify and plan to exploit gaps that occur.

OCAI Factor	Red	Amber	Green		
Resources: mapping the precise resources an OCG					
People: When you know which OCG members will lose or benefit from a certain action					
The requirements of organised criminality					
Mapping the external environment					
Mapping the internal environment					
Total score				Total points	45

SWOT analysis (CMI 2018)

SWOT stands for: Strengths, Weaknesses, Opportunities and Threats. The analysis involves asking questions designed to assess the organisation's capabilities, explore opportunities open to it and identify actual and potential threats to its success.

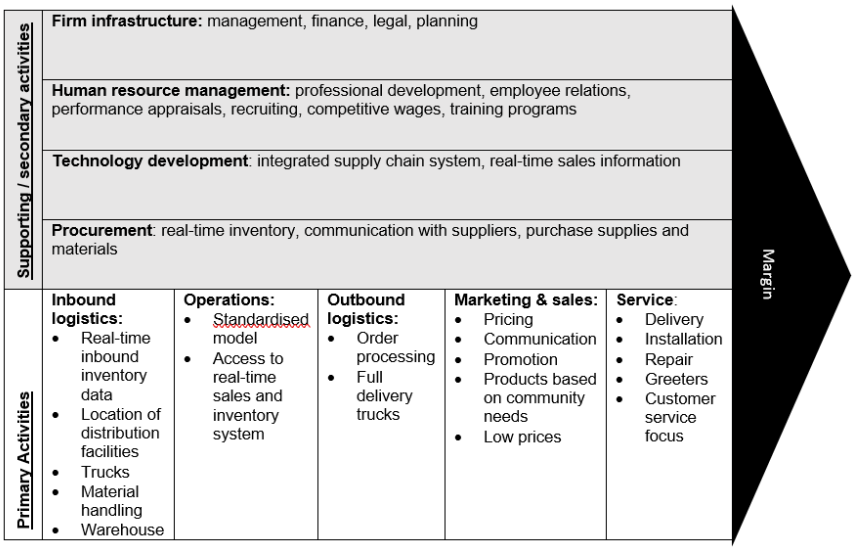
Internal factors	STRENGTHS (+)	WEAKNESSES (-)
External factors	OPPORTUNITIES (+)	THREATS (-)

OCA: Identifying where the OCG is strong and where it is not, allows operations to be specifically targeted

OCAI Factor	Red	Amber	Green		
Resources: mapping the precise resources an OCG					
People: When you know which OCG members will lose or benefit from a certain action					
The requirements of organised criminality					
Mapping the external environment					
Mapping the internal environment					
Total score				Total points	25

Value chain analysis (CMI 2018) shows how the value of an end product/service accumulates along the chain of organisational activities. It is a mechanism for identifying which of a company's activities create the greatest value.

OCA: Once you have mapped out the entire business chained and identified the most profitable areas, this information can be fed into the investigative strategy.



OCAI Factor	Red	Amber	Green		
Resources: mapping the precise resources an OCG					
People: When you know which OCG members will lose or benefit from a certain action					
The requirements of organised criminality					
Mapping the external environment					
Mapping the internal environment					
Total score				Total points	35

Smartsheet (2019)

Criminal Business Analysis Matrix (CBAM) (De Leon Ochoa 2014)

They produce brief summaries of each criminal requirement and rate each sector as high, medium, or low.

Entrepreneurial Capabilities ↓	Establishing						Expanding				Consolidating			Positioning		
5. Profit maximization																
4. People cooperation																
3. Decision making under uncertainty																
2. Resources mobilization																
1. Opportunity perspective																
Business development factors →	1.1 Entrepreneurial vision	1.2 Business planning	1.3 Crime money management	2.1 Financial capital	2.2 Operational logistics	2.3 Human resource	3.1 Business intelligence	3.2 Violence	3.3 Corruption	3.4 Counterintelligence	4.1 Criminal business connections	4.2 Legitimate business connections	4.3 Influential people connections	5.1 Local market share	5.2 Global market share	5.3 Competitive advantages

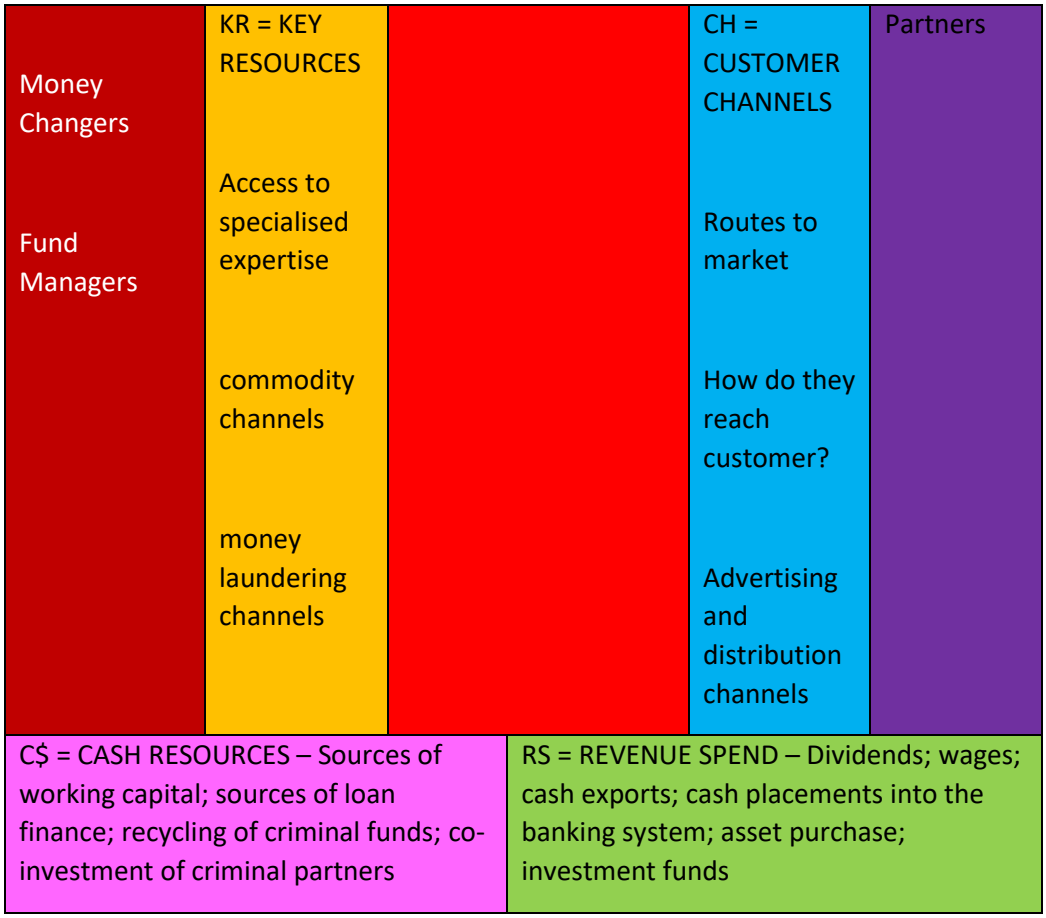
De Leon and Ochoa (2014)

OCAI Factor	Red	Amber	Green		
Resources: mapping the precise resources an OCG					
People: When you know which OCG members will lose or benefit from a certain action					
The requirements of organised criminality					
Mapping the external environment					
Mapping the internal environment					
Total score				Total points	45

OCA: This tool is incredibly useful in the way it breaks down the requirements of organised criminality and allows their vulnerabilities and strengths to be easily mapped and so reverse engineered, but from analytical point of view the low medium high ranking system is quite vague.

Jackal Matrix (Murray 2014)

KP = KEY PARTNERS	KA = KEY ACTIVITIES	VA = VULNERABILITIES & ACTIONS	CR = CUSTOMER RELATIONS	CS = CUSTOMER SEGMENTS
Accountants Lawyers Surveyors Logistics Bankers Landlords Suppliers Import/Export Agents	Business Activity Criminal Legitimate Criminal service to legitimate customer Criminal service to criminal customer Legitimate service to criminal customer	Dynamic assessment of SOCG in terms of organisation, network or process • Distinctive capabilities exploited by SOCG • Assessment of Vulnerabilities • Actions based on options and opportunities suggested by Vulnerabilities	How do they look after their customers? How do they keep them? How do they get new customers?	Customer markets serviced: Legitimate Criminal Public Sector Private Individuals Foreign Criminal



The relevant 'sorting boxes' are as follows:

- **KP = Key Partners** – What are the key business relationships the OCG has: suppliers, customers, professional advisors. Remember we want to include both legitimate and illegitimate contacts.

- **KA = Key Activities** – What does the OCG. What fields of criminality is it engaged in? What legitimate businesses is it engaged in?

- **KR = Key Resources** – What access does it specialised services e.g. money laundering services? Access to distribution networks, technological expertise etc.?

- The above 'K' boxes can be thought of as being concerned with 'WHAT DOES THE OCG DO?' They principally relate to the distinctive capabilities of ARCHITECTURE and INNOVATION.

- **CR = Customer Relations** – How does it deal with its customers? Threats? Coercion? Economic bullying? Maintaining good relations? Emphasising quality of service?

- **CH = Customer Channels** – How does the OCG access markets (usually referred to as routes to market) – both legitimate and illegitimate. What interfaces are there with legitimate businesses (interfaces between criminality and legitimacy are always potential interventions opportunities)? What are its principal routes to criminal markets e.g. drug distribution networks; specialist internet intermediaries who provide platforms for sex customers (often very relevant for Human Trafficking OCGs)?

- **CS = Customer Segments** – What markets does the OCG serve and how can they be analysed: i.e. in terms of geography? Or industry? Or type of criminality? Or product or service type?

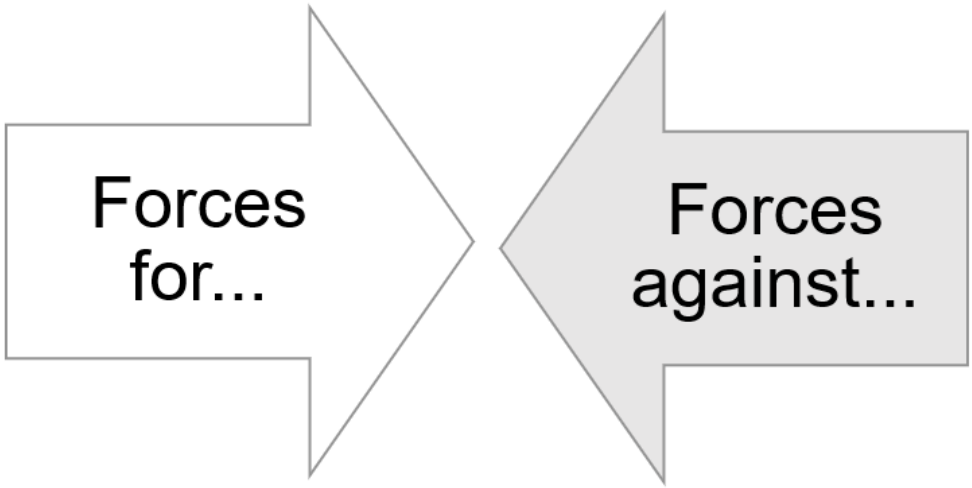
We are looking for a profile of the areas where the OCG has demonstrable presence and influence.

OCAI Factor	Red	Amber	Green		
Resources: mapping the precise resources an OCG					
People: When you know which OCG members will lose or benefit from a certain action					
The requirements of organised criminality					
Mapping the external environment					
Mapping the internal environment					
Total score				Total points	45

OCA: By Mapping out the 'financial spine' of the OCG you are better able to assess its vulnerabilities

Force Field analysis (CMI 2018) an analytic tool for considering how forces for change might be intensified, or resistant forces might be weakened or reduced.

Force Field Analysis (Lewin)



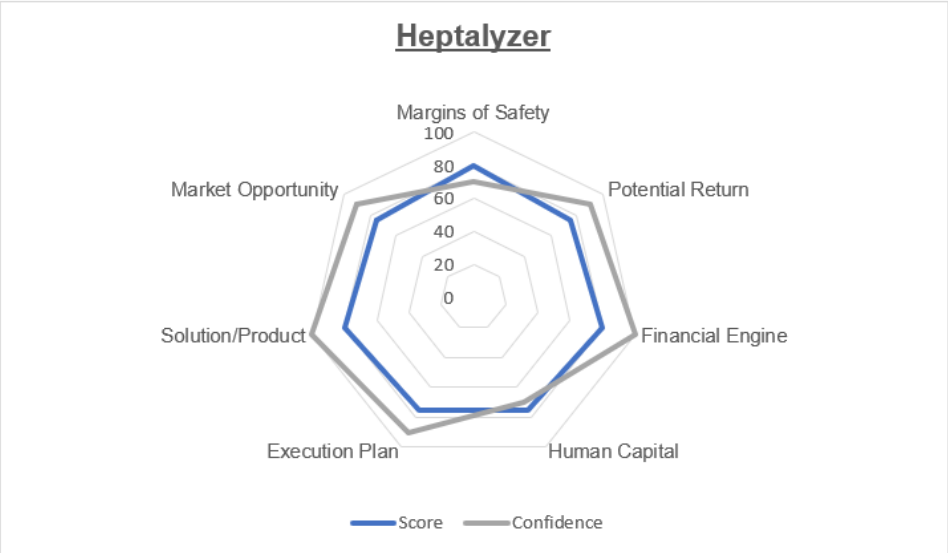
(MSP Guide 2019)

OCA: useful in determining the consequences of operational activity IE if by arresting one major player you may create a power vacuum.

OCAI Factor	Red	Amber	Green		
Resources: mapping the precise resources an OCG					
People: When you know which OCG members will lose or benefit from a certain action					
The requirements of organised criminality					
Mapping the external environment					
Mapping the internal environment					
Total score				Total points	30

Heptalysis (PESTLE analysis 2018) this is a business analysis tool which you can use to run an elaborate analysis of early stage businesses. It is based on the following categories:

- Market Opportunity; Product or Solution; Execution plan; Financial engine; Human capital; Potential return; and Margin of safety.



OCA: Through mapping the precise resources an OCG has you can better assess the likelihood of the direction of their next business move

OCAI Factor	Red	Amber	Green		
Resources: mapping the precise resources an OCG					
People: When you know which OCG members will lose or benefit from a certain action					
The requirements of organised criminality					
Mapping the external environment					
Mapping the internal environment					
Total score				Total points	45

CATWOE (PESTLE Analysis 2018) CATWOE is a business analysis tool which helps quick thinking about specific business aims. There are six important elements. CATWOE is an acronym of:

- Customers; Actors; Transformation Process; Worldview; Owner; and Environmental constraints.

So, when conducting CATWOE, you will have to identify the beneficiaries of the business process. You will also have to find out how the issue can affect them.

Gannt pro (2017)

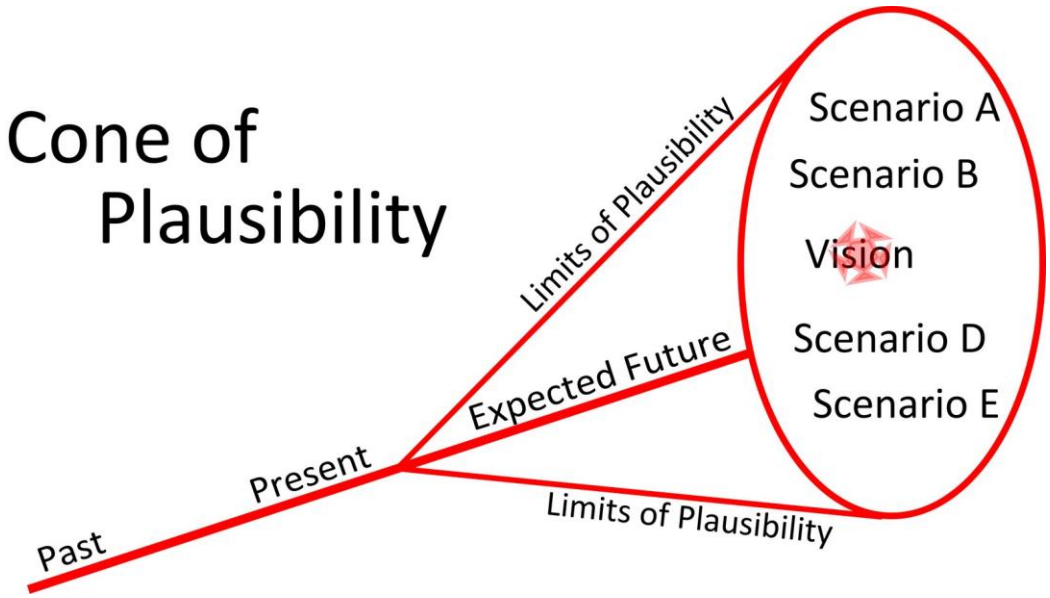
CATWOE		
C	Customers	Who are the beneficiaries of the business process and how does the issue affect them>
A	Actors	Who is involved in the situation?
T	Transformation	What is the transformation that lies at the heart of the system?
W	World view	What is the big picture and what are the wider impacts of the issue?
O	Owner	Who owns the process or situation being investigated and what role will they play in the solution?
E	Environmental constraints	What are the constraints that will impact the solution and its success?

OCAI Factor	Red	Amber	Green		
Resources: mapping the precise resources an OCG					
People: When you know which OCG members will lose or benefit from a certain action					
The requirements of organised criminality					
Mapping the external environment					
Mapping the internal environment					
Total score				Total points	50

OCA: When you know which OCG members will lose or benefit from a certain action you can plan an operation around their reactions

Cone of Plausibility (Government Office for Science 2009)

The Cone of Plausibility allows the generation of a range of plausible scenarios that describe how a subject area may look after a given timeframe. It provides a clear audit trail to explain how they are reached. Generating key drivers relating to a subject area (without generating scenarios) can provide you with useful insights about what factors are the most important in shaping the future.



AAM (2010)

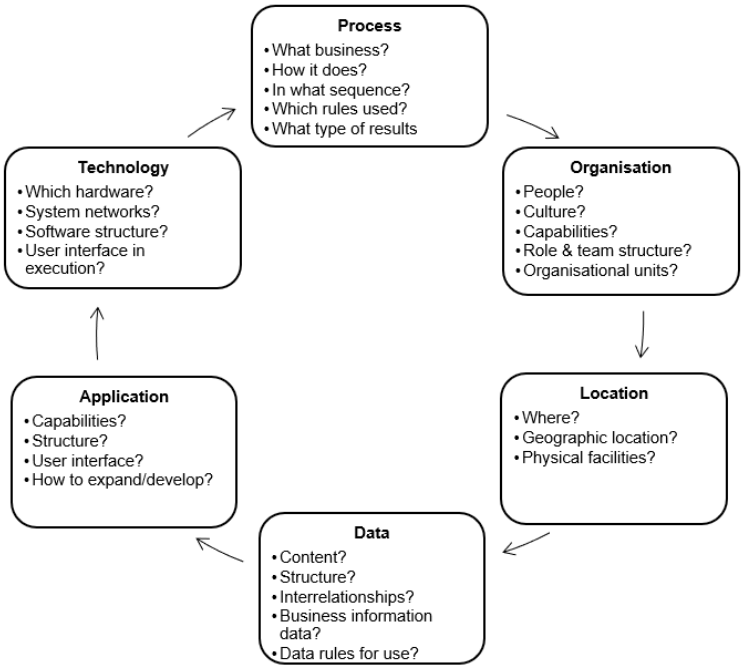
OCA: This is useful during the operational planning stage, as it enables law enforcement to scenario plan all the possible options that will occur after an event and therefore set in motion plans to adapt to this

OCAI Factor	Red	Amber	Green
Resources: mapping the precise resources an OCG			
People: When you know which OCG members will lose or benefit from a certain action			
The requirements of organised criminality			
Mapping the external environment			
Mapping the			

internal environment					
Total score				Total points	25

The POLDAT Framework (Toolbook 2018) another, structure often used in business process re-engineering projects. This model develops documents, tables, matrices, graphs, models and organizes them in the following categories:

- Process; Organisation; Location; Data; Applications; and Technology.



OCA: Useful for putting findings into a format easily explained to non-analysts and finding weaknesses in process and operation that can be exploited

OCAI Factor	Red	Amber	Green
Resources: mapping the precise resources an OCG			
People: When you know which OCG members will lose or benefit from a certain action			
The requirements of organised criminality			

Mapping the external environment					
Mapping the internal environment					
Total score				Total points	45

Once the techniques had been assessed using the OCAI they were then organised into sections relating to the type of question each technique asked and moved into the first version of the toolkit. The points-based methodology furthered the academic veracity of the design of the OCAI, with only elements of the techniques that had green grades making the cut into the first version of the toolkit. This section has outlined the principles that underpin the original pre methodology innovation, critically assessing its creation, implementation into the research process, the extent it supports the core research concept and importantly questions surrounding bias in relation to designing and using and critiquing a tool of one's own invention and explained how this element fits into to the overall research aims.

The development process: How and why U BATTLE changed through the methodologies

Note: V1-4 of the toolkit are included below for reference purposes in a condensed format suitable for thesis publication, for purposes of brevity this differs from the format the toolkit was initially presented in.

U BATTLE OCAI TO v1

The way it was decided which techniques were most relevant was loosely based on the business analysis process model (BA Times 2021), a five-step process to determine business needs, investigate situation, consider perspectives, analyse needs, evaluate options, and define requirements. The main processes that have occurred are a duplication analysis to ensure that different techniques which ask the same questions are only included once and that techniques including elements of legitimate business that are not relevant to organised crime, were not included. In addition, the changes that were suggested in the survey and interview sections of the thesis, as has been explained in the relevant sections, were also adapted into U BATTLE. The majority of the remainder of the changes came from the historical or live case analyses where, if a particular question within the toolkit didn't not elicit a productive response when applied to the intelligence data, it was removed. The OCAI allowed the specific questions contained in each business analysis technique to be quantified. Once this occurred, the initial adaptions could take place which would allow the techniques to be applied in an organised crime context. This was done by manual alterations for example the 7Cs of Consulting (Cope 2000) was adapted by the author to form the 5Cs of organised crime investigation. In practice this means that the initial 7Cs (client, clarify, create, change, confirm, continue, close), developed as a tool for consultants to analyse legitimate businesses, were changed by the author.

Confirm and close were deemed to be irrelevant to an organised crime context and thus were removed, as you can see the below the remaining 5 Cs can be adapted and so were left in place.

- Client – Understanding the actions that are required for successful operation of an OCGS.

- Clarify - What specifically, are you trying to achieve with the investigation?
- Change - What needs to occur in order to ensure success?
- Create - Plan how this will be achieved.
- Continue - Will changes made permanent benefit?

Both Porter's 5 forces and McKinsey's 7S needed little adaption as the key questions within them related to the environments in which the business operates which remain constant regardless of the licitness of the product. The O in CATWOE and the D in POLDAT (standing for Owner and Data respectively) were removed with the remaining factors. These remaining factors were deemed applicable following trial on historical cases. This process was repeated using Heptalysis, Burke Litwin Model, SWOT analysis, CBAM Value chain, and Jackal Matrix. The key point here is the manual adaption of these techniques, which is susceptible to the biases and prejudices of any individual human being is only the first element of a multi-faceted methodology specifically designed to counter the unavoidable weaknesses that are present in this first element. The remaining element of the methodology (the survey, interviews, historical and live case analysis and blind feedback) counter this. Full details of the changes made between versions can be found in Appendix 3.

U BATTLE Toolkit (Final version)- earlier versions are available in the appendix

This version was trailed using blind feedback

Taking similarities that can be transposed from legitimate enterprises to Organised Crime Groups to enhance understanding of the relevant business dynamics to develop an instinct for where law enforcement can really hurt an OCG.

Section 1 Understanding the OCG (UOCG)

OCG NAME/ID

Geographical scope

International dimension:

The OCG's geographic sphere of activity and influence, based on its country(-ies) of origin, country(-ies) of main activities and country(-ies) of supporting activities.

High: The OCG is present and active in more than 7 countries in or outside the EU ◯

Medium: The OCG is present and active in 3 to 7 countries in or outside the EU ◯

Low: The OCG is present and active in two countries

The number of people under investigation

High: The OCG has more than 12 members.

Medium: The OCG has between 6 and 12 members.

Low: The OCG has less than 6 members.

Unknown:

The structure and type of the OCG

Hierarchical: the OCG is hierarchically structured, with internal systems of control and discipline.

Core group: the OCG is relatively tightly organised but unstructured, and surrounded by a network of individuals engaged in criminal activities

Loose network: the OCG is a loose and fluid network of individuals, often drawing on individuals with particular skills, who constitute themselves around an on-going series of criminal projects.

Unknown: not applicable

Types of criminality

Origins of investigation

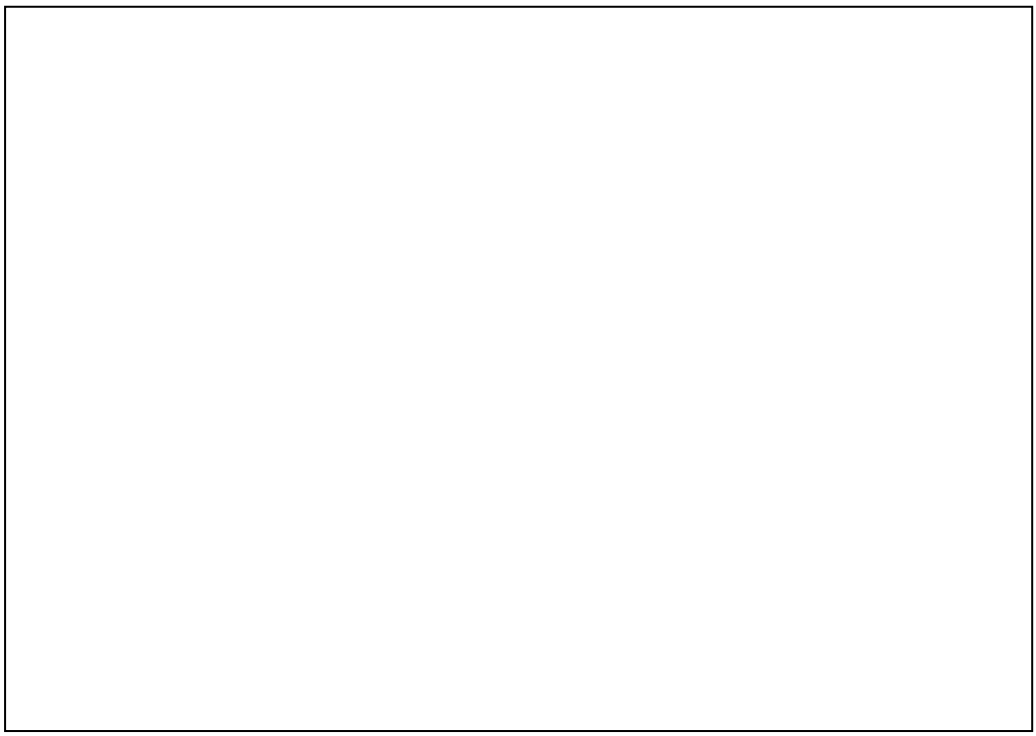
Investigative aims:

What specifically, are you trying to achieve with the investigation; Will changes made have permanent benefit

Capability and Intent: 'x-factor' - what makes this OCG different?

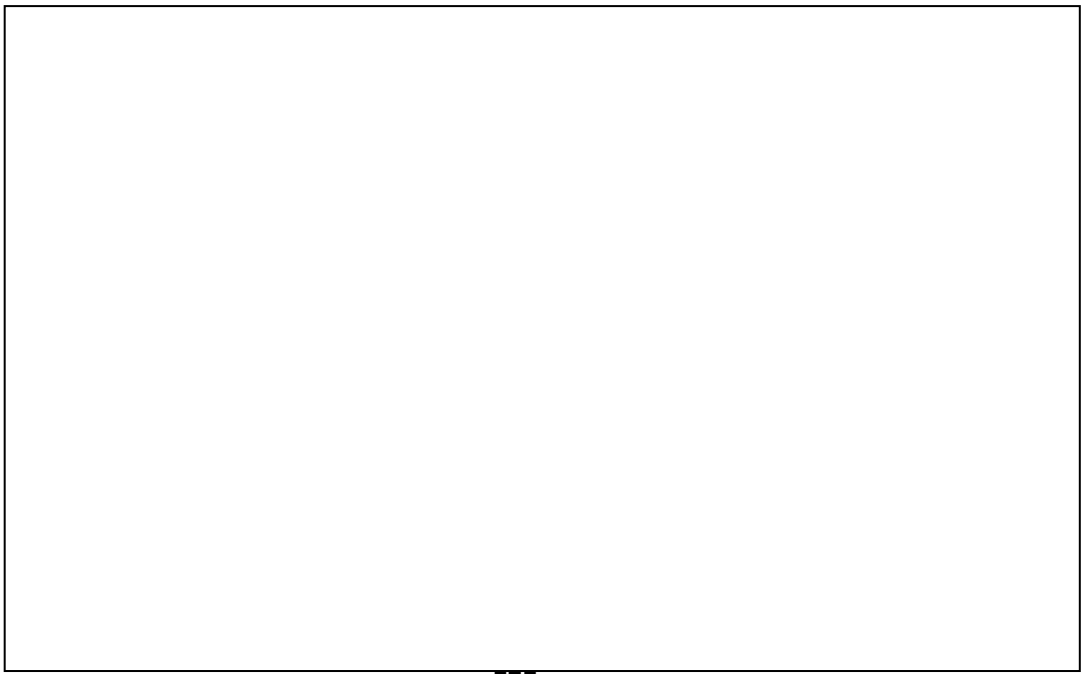
1) OCG Business Model Vulnerabilities

- How does the OCG operate, who are the key nominals and how do they control OCG activities
- Political, Economic, Social, Legal, technological factors that affect the operation of the OCG,



2) Criminal business Skill: start low to high

- Counter Intelligence,
- Awareness of police procedure,
- Aware of Police and Criminal Evidence Act, Forensic Aware, Surveillance aware
- International connections,
- Legitimate business connection- (willing, coerced wilfully blind)
- Violence
- Corruption
- Research and development
- Skills deficit



business skills

- Entrepreneurial vision;
- Inbound logistics- how where the commodity/product is coming in,
- Outbound logistics- how and where the commodity/product is coming out,
- Where are the key premises of the OCG located
- Procurement- where/how are products sourced,
- Transport networks-
- Innovation- future orientation- moving to new market. How do they evolve, adapt and innovate
- Has group adapted to internationalisation
- Ability to adapt to change
- Collaborating with other groups

4) Community view of the OCG

Is there evidence of community tolerance of the OCG- why is this what are they providing that traditional authority doesn't.

5)Human Capital

Staffing - gaps to be exploited?; Human Resource

Management - how are employees recruited treated etc? Do the senior OCG members exhibit management traits that can be exploited?

Working environment - if OCG members are unhappy this can be exploited; are their gaps in the skillsets of the individuals that can be exploited? How are staff/talent identified obtained recruited, motivated? How are employees identified then targeted then recruited then treated then developed?

6) Strategy

- OCGs business Disaster recovery strategy/contingency: if your shipment is intercepted, how do you recover it?

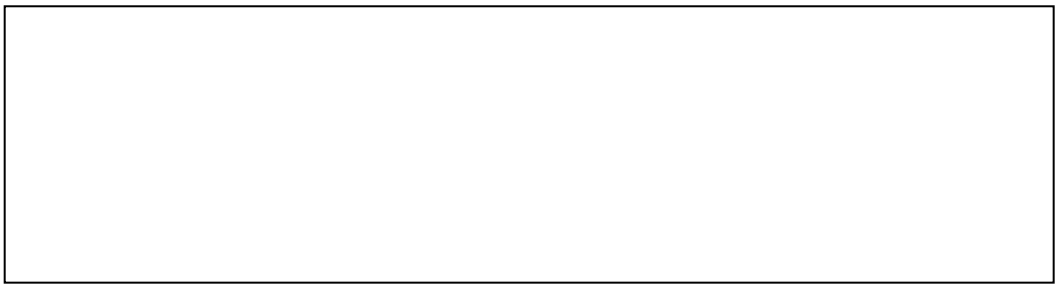
Succession plan, who might succeed if key members

- What is the rewards/promotional structure within the OCG?

Financial vulnerabilities within the OCG

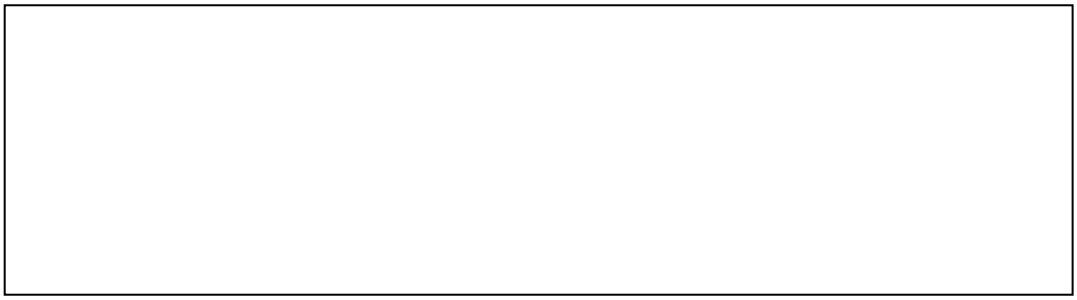
1) KP = KEY Legitimate PARTNER:

- Lawyers, Surveyors, Bankers, Landlords, Suppliers, Import/Export Agents, Money Changers, Fund Managers



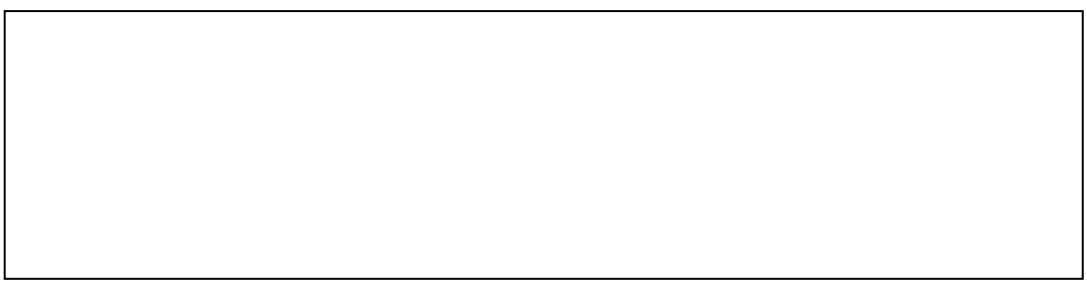
K
R = KEY RESOURCES:

- Access to specialised expertise, commodity channels, money laundering channels,



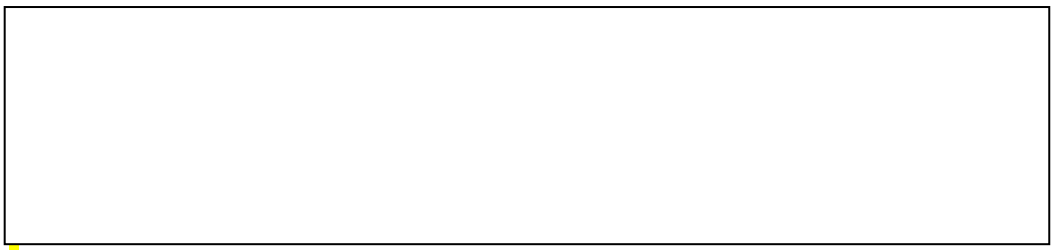
3) CR = CUSTOMER RELATIONS HOW THE BUSINESS IS RUN:

- How do they look after their customers?, How do they keep them?, How do they get new customers? How are they identified
- how do criminal choose the victims, what are they looking for



4) CASH RESOURCES WHERE THE MONEY COMES FROM:

- Sources of working capital; sources of loan finance; recycling of criminal funds; co-investment of criminal partners

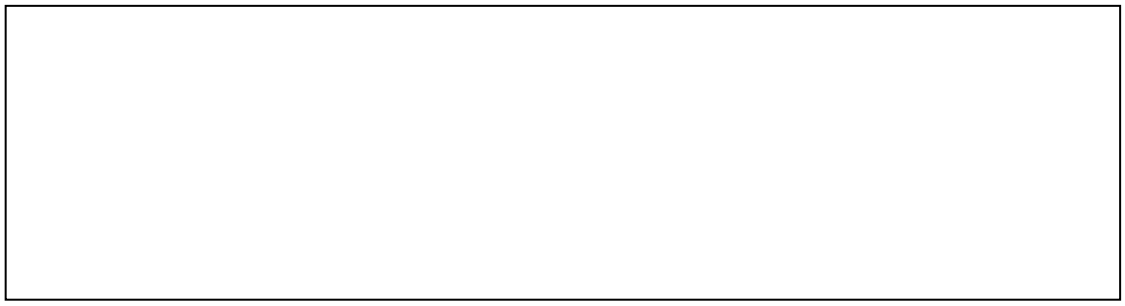


r
ime Money Management

Money flow. An end to end understanding of financial drivers, notably in understanding the interfaces between say farmers producing illicit crops, chemists, transporters and ultimate traffickers and wholesale and retail providers of illegal services

6) Criminal assets

- What is done with the profits. Lifestyle/ family vulnerabilities, describe the lifestyle of nominals



7. Key Financial details

- Useful if the financial intelligence is there to generate pricing strategy, market share and how long it takes to turn a profit

Market vulnerabilities

1)Cooperation/ How they interact with other OCGs

2) Bargaining power of buyers- Who is the power player in each supply chain section

- Which elements do those who are purchasing the OCGs commodity control

3) Bargaining power of suppliers:

- W

ich elements of business does the supplier control

4) Rivalry amongst existing competitors/ Threat of new entrants-

- Who else operates or wishes to operate in this particular landscape

Section 2: Law enforcement strategy

Level of current intelligence

Gaps: how much effort is needed to find out, how do we do that, what is the value of doing that what is the best source to obtain that (open source or covert)?

Specific elements of legislation that tie in with the questions you are asking,

Tactical considerations: Overt and Covert tactical dashboard,

Disruption opportunities and ways to damage the business: preventative reassurance investigative development, proactive

Multi agency response required:

Case study Reduce

Note: Some details of the case study below- trialled on version 4 of the toolkit- were redacted because it relates to a live OCG. The analysis was conducted by the researcher following access to intelligence files. Feedback from SEROCU officers and analysts was also received on the below case study, this is analysed later in the chapter. The case study below serves as an example of how U BATTLE can be applied in the real world.

The scoring system included at the end of each section, an attempt to add a quantitative rigour to a piece of mainly qualitative analysis was removed after this trial as feedback suggested it was too complex and added little.

The full case study can be viewed in Appendix 1

Feedback

As part of the multi-faceted methodology, detailed feedback on the practical utility of various versions of the U BATTLE toolkit was sought and received. This was often facilitated by professional connections within the various law enforcement agencies who shared data. This served to underpin the academic veracity of the project. As well as speaking towards the investigative uses of the theory behind this research, this also acted as a further honing methodology to ensure the key questions within this research were as useful as possible in a practical policing sense. The first feedback came from SEROCU, who were incredibly generous with their time, allowing access to intelligence (once data sharing protocols had been observed) on several OCGs (only one of which- Rapture- is reproduced in the thesis) and also sharing documents and providing contacts to various individuals who specialise in OCG intelligence and investigation.

Interestingly the feedback that received from the SEROCU (a report summarised below and compiled by the OCGM manager, the rapture operational team, the ROCU lead analyst and ROCU strategic intelligence manager) was the only feedback that was negative. There are a multitude of reasons that explain this, outlined below.

U BATTLE SEROCU Feedback

SEROCU Feedback: “Scoring / assessment: All of the professionals who reviewed the product reported that the OCGM assessment document was used heavily in this assessment. With some sections being taken directly from the OCGM section. Therefore, the group could not see the added value of the U BATTLE analysis, with a large amount of it being based on OCGM”.

Response: The OCGM assessment document was indeed used heavily. The reasoning behind this is this was the source material provided. After prolonged discussions with the ROCU strategic intelligence manager, it was decided that access to the raw intelligence logs that sit behind the creation of these documents was neither feasible or practical, due to the location of the data within a case management system that would require a manual trawl of these logs.

Furthermore, access was not granted to sensitive intelligence data such as phone data and human intelligence prior to it being sanitised in the OCGM. This meant that, rather than utilising the raw data as an analyst would have, the author had to use data that had already been categorised. This also meant that potential vulnerabilities in the raw intelligence may have been missed is less useful

in the development of U BATTLE because to great extent which the categorisation and the assessment has already been completed. Therefore, because of this, there is limited opportunity to apply U BATTLE without existing investigative biases creeping in.

The feedback from SEROCU, placed alongside experiences in the other case studies, indicates that despite being given a level of access that would not be possible for non-vetted researchers which has undoubtedly provided a good deal of insight into OCG investigation, the parallels between OCGs and legitimate businesses and by extension the development of a tool to exploit these similarities- full and uninhibited access to an OCG that would fit the entry criteria of U BATTLE or an high or mid-level OCG, is unlikely to be possible without the protections and access offered by a full time investigative or analytical role within the organisation responsible for investigating the OCG.

That is to say that even with vetting credentials and a PNN email address you are still seen to an extent as an outsider and are not trusted with unfettered access to OCG data On the one hand, from a data security and organisational reputation point of view, I can understand the reluctance of law enforcement to fully share data on such a sensitive topic, particularly to a researcher not within their own organisation. On the other hand, from a research perspective, without the structures in place to enable individuals with the time and capacity to analyse information that is both sensitive and relevant to live investigations, then there is only so much that can be learned and consequently passed back into law enforcement.

SEROCU Feedback:

Many of the sections from U BATTLE were a direct replication of the OCGM scoring e.g. human capital, strategy etc. Again, the group felt that U BATTLE did not add additional value and lent heavily from OCGM.

Response: The U BATTLE criteria were developed independently of OCGM. U BATTLE began development in the summer of 2018 with the creation of the Organised Crime Applicability Index and the analysis of numerous business analysis techniques. The toolkit was then trialled on historical, and then live, cases from early 2019. The OCGM assessment documentation from the SEROCU was only obtained in early autumn 2019, by which time the questions within the U BATTLE toolkit had already been developed and trialled. Therefore, the criticism that the human capital and strategy sections were a direct replication of the OCGM is in fact a benefit as it evidences that after being developed independently the research has come to the same conclusion regarding the operational similarities between OCGs and legitimate businesses. Also, the implication that U BATTLE is not operationally relevant because of this is misguided as it overlooks the idea that the toolkit could act as a potential replacement for OCGM assessment.

Further, the feedback was critical that the content was cut and pasted from existing documents. Firstly, given the available source material was already in the form of profiles rather than raw intelligence, the only logical option was to cut and paste some elements that were already aligned, rather than rewriting them for the sake of it. However, if U BATTLE was being applied to an investigation in real time, it could be filled with intelligence as it comes in and updated as the intelligence picture is developed. However, this was not applied to a real-time investigation but rather it was based on access to documents which were initially live but by the time they had been through the authorisation process, and then scheduled for analysis by myself, such documents were almost 2 months out of date.

Following the above feedback, the difference between live and historical cases, which seemed crucial at the beginning of the research, appears less important as unless the researcher is receiving

updates in real time to the investigation. As previously discussed, however, this wasn't possible. Even then, if the investigation was a live one when the source documentation was sent to the researcher, by the time the agency has read and absorbed the completed results, the case is likely to have moved on and the difference between live and historical has almost become elementary.

SEROCU Feedback: The group reported that the x factor (the unique characteristic of the OCG) section was a good concept, but this is usually the additional context which is included when scoring an Op / OCG to highlight threat, risk, and harm.

Response: This feedback is noted, however, it is not clear in the OCGM assessment I received that this is how the x factor should be applied, so it will remain in U BATTLE. The main question going forward is how, if at all the factors identified in U BATTLE should be merged or otherwise with existing OCGM assessment documentation.

SEROCU Feedback: The group fed back regarding tactical considerations. Noting these were quite vague and did not add value to the operational response.

Response: This is a challenge, as the researcher has not been formally trained as an investigator, so knowledge of appropriate tactical considerations has been accumulated on an ad hoc basis through discussions with detectives and reading of tactical manuals provided by the College of Policing and The National Crime Agency. Ultimately, this issue will not be reflected should U BATTLE make it through to be accepted as operational policy as it will then be being applied by trained analysts and investigators with the appropriate access.

SEROCU Feedback: The findings did not mention financial legislation. This is a key aspect of every SOC investigation.

Response: This isn't a particular area of expertise for the principal researcher currently, efforts will be made to redress this and include any relevant financial laws.

SEROCU Feedback: The findings do not cover Immigration Enforcement or Border Force. These were key partners in this investigation with the movement of people into the country for sexual exploitation.

Response: Again, this isn't a particular area of expertise for the principal researcher currently, efforts will be made to redress this and include any relevant information. This feedback shows the disadvantages of a single researcher developing a tool that attempts to encompasses the entire span of serious and organised crime and its associated areas, financial investigation and immigration matters are huge areas within their own right, each with their own specialist requirements, namely that it is an almost impossible challenge in the world of organised crime to be an expert in all areas.

This is further reinforced by feedback regarding the potential involvement of Her Majesty's Revenue and Customs to identify the legitimate businesses involved in laundering the OCGs money and place sanctions on them to restrict the groups cash flow.

SEROCU Feedback: Victims

Another strand of the feedback was that U BATTLE did not take into consideration the needs and vulnerabilities of the victims in this investigation: Feedback from one respondent noted: "One of the issues with this job related to the severe threat to the safety of the victims and their families. There were serious security considerations and the safety of the subjects which were not considered in U BATTLE."

Response: Firstly, the aforementioned safety considerations were not mentioned either in the documentation I had access to, or in briefings I was given over the phone or in person. Therefore, it is difficult to see how I could have known about these issues. Having said that, during its development U BATTLE has been primarily focussed on the nominals involved in an OCG, how they are structured, and how there are similarities between the operation of legitimate businesses. As a result, the needs of the victim have not been considered when structuring the toolkit.

Looking inward this is in part due to the author's own biases, as a researcher my focus has always been on the OCGs themselves, their criminality, and their modus operandi. The considerations of victims, as heartless as it sounds, is not a key interest therefore subconsciously this has translated into minimising the inclusion of victim needs in this research.

SEROCU Feedback: Intelligence gaps

The intelligence gaps identified are long standing strategic intelligence gaps for the modern slavery and SOC threat picture generally. These are very high-level and did not offer value to the response in this investigation.

Response: While the gaps mentioned are certainly strategic and high level, I would contest the comment that they do not also add value as in this case the strategic gaps mirror the operational ones.

SEROCU Feedback: Intelligence Development Officer

The group reported than an Intelligence Development Officer (IDO) with knowledge of an operation would be able to create this kind of summary / assessment.

Response: This is useful feedback, however often, particularly in smaller forces, where an IDO is often managing multiple OCGs or even merged with the role of intelligence analyst due to resource constraints.

SEROCU Feedback: Findings already known: in the professional practice of SOC threat, the officers / analyst / researcher will establish the business model, the 4P plan, and the disruption strategy early on, and then throughout the duration of the op. Therefore, the findings from U BATTLE were already well-known by the team, who had a deeper understanding and more comprehensive approach than the toolkit provided. Police investigation documents are much more detailed than U BATTLE and so the toolkit is not offering anything which practitioners can use.

Response: The information that the business model and disruption strategy is developed at an early stage, is relevant and would have been incredibly useful when discussing suitable cases as had this been known a case early in development would have been chosen rather than one that was moving towards its conclusion. The last comment misconstrues the point of U BATTLE entirely, the toolkit itself does not generate new information and by definition can only work from the source information the individual who is populating the document has access to. U BATTLE sorts existing information, pulling it in from various sources and ordering it in a way that can that be used to pull out existing vulnerabilities which can then enhance the development of investigative strategies.

PSNI Feedback on V4 of U BATTLE

A further methodology employed was individual feedback targeted at specific analyst. This particular feedback came from a higher analyst in the Police Service of Northern Ireland a force with a significant history of organised criminality. She shared the toolkit with a number of analysts and

investigators involved in the case. In this case, members of a District Support Team and the regional intelligence hub and collated the feedback below.

They used U BATTLE in relation to an OCG involved in the manufacture of drugs in the key city in their area. They have international links; they are originally from Slovakia (where they previously manufactured drugs) and they continue to use a courier from Slovakia to assist in their criminality.

The feedback from use of U BATTLE in a live situation was highly insightful:

> 20. This was a very useful and insightful way to look at an OCG. It was helpful to describe the many functions that integrate and contribute to allowing the OCG to operate.
>
> 21. The level to which the content of the Toolkit will apply to an OCG will likely differ from group to group.
>
> 22. I have to admit, because this was such a different way to look at an OCG, I found it quite difficult to write the report. But the end result was something really useful and as you have said, it is good to think of other ways to potentially target an OCG.
>
> 23. We may not necessarily want to write a report based on the toolkit (as I did) however it may be beneficially to include the information as part of other reports, particularly a Criminal Business Profile (could even form the template for this) or an operational intelligence assessment - I think it would add real value here. In particular, the Financial and Market Vulnerabilities are not something we normally consider but it was thought they are very useful. Business skills would also be a useful concept to consider especially with the fluid drug market.
>
> 24. I found the 'X' Factor section really interesting and really different way to think about the OCG. I personally got a lot of this section, as I realised a number of points about the OCG I hadn't really considered.
>
> 25. There were a few parts the report where I found myself being a little repetitive (I tried to take bits out where I thought I had already mentioned it). However, this may not be the case in all OCG's. And this isn't unique to this toolkit, as I find that the case in other analytical products as well.
>
> 26. It was suggested this toolkit could enhance collaborative working between investigators, analysts, intelligence officers, other departments (such as Economic Crime Unit) and partner agencies (such as HMRC / NCA). It could be a useful tool for a brain storming session with the aforementioned persons/units.
>
> 27. The investigator detailed that the report was good and concise, but they did find it a difficult read. Again, this is not unique to the toolkit, and sometimes they find our reports difficult to read – I think it may be more to do with pages of text – they prefer things to have pictures / maps etc. to break up the text. This is maybe something I would need to think about for the customer, rather than a problem with the toolkit. They did see a few options for progressing the investigation that they hadn't seen before, so laying it out the way it was in the toolkit was advantageous. They suggested that parts of the report

would be useful for management to understand the OCG and even for parts of it to be useful for briefings.

28. Whilst completing the report I did find it difficult to understand what some of the headings meant, so I would suggest it may be useful to have a short explanation of what each means to assist those completing the toolkit. Certainly, talking through some of the report with one of my colleagues really helped.

29. I thought that the 'Origins of Investigation' and 'Investigative Aims' sat better at the start of the report (but that is a very minor point).

30. Obviously the toolkit is only in draft format however the numbering and layout were a little difficult to follow. Again this is a minor thing.

The depth and breadth of this feedback was incredibly useful, and also almost unwaveringly positive. The feedback regarding the placement of the investigative aims section, will be heeded. As will the comments regarding numbering and layout and that heading needed clearer explanation.

It is difficult with any analytical process to map the process that goes on in the creators head and then turn it into a precise and clear set of instructions able to be followed with someone with no knowledge of how the product has developed, the continual feedback methodology from analysts who will use the product, will facilitate this, as well as enhances the accuracy of the research's core theoretical concept and the usability of the tool that results from it.

Other feedback from interviewees

Chief Constable Andy Cooke, National Lead Crime Business Area, "The toolkit identifies the key parts we need to be looking at to counter organised crime and that it appears to cover all of the essential elements".

The positive endorsement from Andy Cooke, current chief constable of Merseyside Police alongside holding this national role, is particularly valued as both historically and contemporarily, Liverpool has been regarded an area renowned for its organised crime. Consequently, Merseyside Police have been at the forefront of the ongoing battle to stop its operation.

Alistair Beere, Liverpool John Moores University Business School: **"**I think you've got it pretty much covered, I can't think of anything that comes to mind that would revolutionise what you are doing, I think you're pretty much there".

This comment from an academic who specialises in business analysis, and their role in enhancing understanding in business activities, in conjunction with the other methodologies validates the research approach.

Regional Organised Crime Unit Testimonials (conducted anonymously via survey):

- "It has the potential to be very useful, certainly from an OCG mapping perspective a lot of it appears to cover things that I consider when assessing an OCG. I can also see it being useful in identifying possible opportunities for disrupting an OCG".

- "Could assist with considering operational tactics and well as identifying intelligence gaps."

- "Very useful, especially in planning appropriate interventions".

While anonymous, positive feedback from those involved in OCG investigations at a high level is very useful; non anonymous feedback from operational officers was also positive, Detective Inspector Sean Bylinski-Gelder Economic Interventions Merseyside Police: "Very progressive, helping to provide a standardised framework/approach from which we can build and adapt to emerging trends".

Detective Inspector - Head of Asset Recovery Team: "Using U BATTLE to re-think OCNs as structured business models is refreshing and actually makes the problem solving thought process that much more logical. All too often the working structures of OCNs are thought of as ephemeral and intangible concepts but your template provide structure to the way in which specific areas can be isolated, analysed and then re-integrated into the bigger picture".

"I wonder whether the mnemonic might be seen as quite confrontational, but also like the parody given how compartmentalising OCNs does feel like an uphill struggle sometimes!".

"I particularly like how some of the subject headings cause some head scratching; to the effect of 'how do I actually find out that information'. I can see that encouraging senior investigating officers to reach out to specialist areas of law enforcement and intelligence agencies to ask those questions which in turn will generate more original thinking".

"In terms of use it could sit well with an intelligence development setting in the first instance and then adopted in to an operational model in the later stages of an operation."

The DI, who also has an academic as well as a practical policing background having completed his PhD, is valuable as it speaks to both the practical and theoretical benefits of the research that someone with knowledge of both policing and academia is as positive about the research as he is.

U BATTLE: Anecdotal feedback from the NAWG

The author presented preliminary findings to the National Analysts Working Group in October 2019, feedback from the group. This group consists of principal/senior/head analysts of each of the 43 forces across England and Wales as well as ROCUs NCA and other law enforcement agencies. During the presentation, the toolkit was identified as a method of sorting existing information and then enhancing the development of investigative strategies. It was also established that the mechanics of it could aid the development of the MoRILE framework. The feedback received from this was that both the potential avenues could be useful, but that, without consultation from the original, U BATTLE was an improvement to the criminal business profile designed by the National Policing Improvement Agency in 2004. This was verbally confirmed but no written confirmation was available. Criminal business analysis evolved into crime script analysis, it is envisioned that U BATTLE will form the next stage of this evolutionary process.

Survey analysis

The survey was the first methodological element that involved participants, in this case members of the ROCU network with SEROCU acting as gatekeeper. This chapter looks at the validity and veracity of the results, and critically considers whether the question choices could have been better informed should they have been posed later in the research phase. It also examines the pitfalls and benefits of using a highly sensitive law enforcement unit as a gatekeeper, the impact that had on the survey and the research overall.

Given the structure of the survey, it was logical to split the analysis of the qualitative questions into sections relating to the question title. Note, the grammar and syntax of the interviewees is as they originally typed it, unless this made their point unclear, then it has been amended. As with the interviews thematic analysis was conducted manually without the use of software**.**

Sections

The key to testing the authenticity of these findings will be testing them in an evidence-based environment. This will involve translating the suggestions in both the survey and the interviews into a final version of the U BATTLE toolkit, and then applying it to real live OCGs. The results from this application has then been evidenced in the case study analysis and blind feedback sections.

1. U BATTLE improvements: where it could sit in the investigative process?

2. Current OCG analytical capabilities and uses for U BATTLE?

3. How much does policing learn from business?

4. Is policing wary of change?

5. Improvements to the toolkit

Key: The number represents the respondent number (in order of completion) and the Q with a number represents which question they were responding too

U BATTLE uses and improvements: where it could sit in the investigative process?

Slightly more than a quarter of respondents (5/16) did not suggest any improvements to the toolkit at all, there are likely two possible explanations for this. Firstly, that they genuinely did not have any suggestions, or secondly, that they did not feel comfortable in divulging any ideas they may have had. Given the anonymous nature of the survey, the first option would appear more likely.

The feedback from this question was discussed with law enforcement and academic partners and implanted into V4 of the toolkit which was developed following the survey.

- (1Q4) “The only major thing that we use in OCG assessments now (and is also true for businesses) that appears to be missing is the ability to adapt to change. Possibly also more about collaborating with other groups”.

- (5Q4) “Inclusion of intent, capability, geographical scope”.

- (6Q4) “An end to end understanding of financial drivers would be appropriate, notably in understanding the interfaces between say farmers producing illicit crops, chemists, transporters and ultimate traffickers and wholesale and retail providers of illegal services”.

- (13Q4) “Disruption opportunities and ways to damage the business. I feel this area i.e. which areas can be exploited could be expanded upon. Import, transportation, sales, profit”.

- (14Q4) “The toolkit looks comprehensive. One area which could be explored is an 'x-factor' - what makes this business/OCG different (if anything?) i.e. better/cheaper product, aggressive expansion, motivated/familial workforce, etc.”.

X factor, ability to adapt to change and capability, intent and geographical scope were adopted into the toolkit, these suggestions played a key role in the creation of the ‘Understanding the OCG (UOCG)’ section, which acts as an introduction to the OCG. The suggestions surrounding the understanding of financial drivers is a complex one. Superficially it, it is a legitimate suggestion and one that would benefit analysts and investigators in understanding more thoroughly the naturally clandestine nature of OCGs .This combined with the lack of a detailed intelligence picture of the operation of most OCGs in the UK means that unless law enforcement are either gifted or stumble upon the written financial records of the group- assuming they exist on paper at all- a complete understanding is therefore unlikely. However it has been included, because while U BATTLE’s primary function is to enhance investigative strategy development, it has also been identified in research interviews, as a way to determine the strategic intelligence requirements for an operation- the process that identifies intelligence gaps around an OCG and puts in place a plan to fill them.

- (11Q4) “I think for the toolkit to be used in policing mainstream it needs to be police officer proof so it would need more instructions and guidance, if it could be an electronic tool this would be ideal. Something they could click through”.

Whether or not the automated element of U BATTLE ever makes it to fruition, the process of sorting, assessing, and then developing the information on the OCG must be simple, otherwise it will be ignored. One of the ultimate aims is to move U BATTLE to an automated software tool.

- (12Q4) “Having worked on several OCG investigations - there is a distinct lack of assigning and analyst at the earliest stage of the investigation - the analyst is imperative to the case-we also need to understand how technically minded members of the OCG group are as we rely more and more on digital data and anyone 'in the know' will be aware of our techniques?”.

Through the course of this research, the resourcing of analysts to investigations has been a consistent issue of concern. An NCA operational debriefing attended by the author noted that on one operation due to a lack of available resources two surveillance officers became the de facto analysts for the case. In another force, in the Midlands, there were only a handful of analysts dedicated to the mapping of more than 20 OCGs and even then this was only part of their role. The lack of analysts within policing, the reasons behind this, and the impact that it is having on OCG investigation standard, is worthy of another doctoral thesis in itself and in reality something that cannot be fully examined here. Suffice to say that numerous interviews and first-hand experience within forces across the country indicate it is a serious issue and not one that will be solved quickly.

- (15Q4) “Is the document actually a toolkit? It seems to me more like a list of questions an investigation would like the answers to and not details of tools we could use to target business like activity”.

The legitimacy of calling the product of this research a toolkit is an interesting one, prior to the question being asked the use of the word toolkit had developed organically and the term appeared to suit the research and its purposes. However, definition analysis also supports the use of the word

toolkit. Collins (2019), the respected publisher of dictionaries, defines toolkit as a “fixed set of procedures, guidelines, criteria, etc., established to ensure a desired or required result or prevent oversights”. As a set of guidelines and criteria (the questions within U BATTLE) established to ensure a desired result (identify intelligence gaps and enhance the development of investigative strategies), it is evident that U BATTLE fully hits the criteria to be classified as a toolkit.

- (15Q4) “Money is the key. Maybe you could also look at the people enabling the activity. As soon as a business crosses into a legitimate area of business - like a drug dealer with a property portfolio, it gets very difficult to break it down. Teach us how to spilt the legitimate from the illegitimate so that we don't think "that's too hard to do"”.

Money is undoubtedly key, which is why the finances of an OCG has an entire section dedicated to it, underpinned by the work of Project Jackal in Scotland, the comment about taking away criminal assets is highly relevant, which is why the criminal assets section was included. The merging of illegitimate and legitimate economies is a key element of organised crime, and it is hoped that the splitting up of an OCGs elements of existence will simplify the operational processes of the OCG.

Current OCG analytical capabilities and U BATTLE uses

Again, looking back, for the reasons mentioned above it may have been more beneficial to only include one element in each question, as again the responses below tend to focus on one part of the question.

OCG analytical capabilities

- (5Q6) “OCGs analysed using a tracker which has a complex scoring mechanism that sits behind it. Unsure how your product would align with this”.

The extent U BATTLE should, and will, align with existing functions such as OCGM and MoRILE, is as yet unclear. It could be developed into a standalone model that could replace both OCGM and MoRILE functions or existing purely as a sorting box mechanism to enhance investigative strategy development.

- (3Q6) “The analytical capabilities are limited due to resources available at local/force/region and this leads to inconsistencies in analysis. The use of a toolkit can help however there would still be issues around the resources available to deliver”.

- (12Q6) “Within our force we have OCG units who specifically deal with this type of investigation however as the analysts are centrally based - we do not have a big enough pool of analysts to support these investigations as we are the analytical function for the whole force area. The toolkit may be useful but would still require an analyst to gather all the data sets together to assist in directing the investigation.

- “An OCG subject of a live investigation is subject to a dedicated analyst looking at communications, activity, banking, money transfer etc. An OCG classed as under development may have some analysis completed on them, but they may not. If

they are being MORILE scored, then I would hope an analyst is looking at the recent intelligence in order to support the scoring matrix, but that I think will be the limit of the work on that group. A toolkit that covered all OCG's would be brilliant - but you would need to consider the different types, their current targeting status and consequent resources, overview analysis of OCG's involved in a specific type of criminality."

The resourcing of analysts has been covered elsewhere in this chapter, however the last point from respondent 12 bears further explanation. The automation of the toolkit would certainly save a huge amount of analyst's time and without it could well be hindered without it, given the resourcing and workload issues we have already examined the adoption of U BATTLE. The respondent also indicates the sheer scope of the challenge within this research. In creating a product that is just as relevant to a group involved in carousel fraud, high level drug smuggling and cybercrime, an argument could be made that the research project scope was too broad and that the task of producing an evidence piece of research applicable to every facet of such a vast area is unobtainable and would have been better focused on a specific crime type. This argument will be further explored in the reflections chapter.

- (8Q6) "Current comparable tools are geared towards assessing threat harm and risk without necessarily suggesting or highlighting specific weaknesses/ opportunities. There appears to be a big overlap in the existing tools and U Battle, the difference being the way of thinking about the assessment/OCG."

The extent to which this research is truly innovative is worth further scrutiny. There are overlaps between U BATTLE and existing tools such as OCGM, the Jackal Matrix, CBAM, and the elements of the business analysis techniques that make up the basis of sections 1-3 of the toolkit. The unique element of the research is twofold, that is underpinned by the OCAI methodology and that it takes existing models both from a legitimate business analysis perspective and those that are in use within policing such as Jackal, OCGM and MoRILE. It builds on them, examining organised crime through a business lens.

This not entirely a new concept to law enforcement, however using business analysis techniques to achieve this is new, with only a handful of researchers globally exploring this area and none with the specific aims of this research.

U BATTLE uses

The below feedback identifies the overwhelming positivity surrounding the toolkit and its potential uses. As mentioned earlier, the disparity between this feedback and the feedback from a live case is perplexing.

- (1Q6) "I am involved in analysing and assessing OCGs, I already consider a number of the factors in the toolkit but would find it useful as a reference tool. I can particularly see the benefit of the toolkit to new/inexperienced staff".

- (2Q6) “Product would improve capabilities as actions that could be suggested as a result of this toolkit may be outside of the box, outside of what may usually be considered”.

- (7Q6) “In my team, we do not use anything like this, so would be a marked improvement of analytical capability”.

- (11Q6) “ROCUs have had a real lack of investment around analysis and so currently most analysts in ROCUs just complete communications data analysis. There is very little analysis of OCGs as a business. This toolkit would really assist the work to analyse the best approach to tackle OCGs. It would be best complemented by an investment by the ROCU network / NCA in analysis which could deploy this toolkit as they are well placed to do this”.

- (13Q6) “Mixed depending on the area. Resilience is limited and therefore as good as a system like this would be it’s the practicalities of implementing it”.

- (4Q6) “Structured analytical techniques exist and are effective. However, effective analysis often requires a varied approach. With that in mind, I think the U BATTLE toolkit would be beneficial”.

- (15q6) “Would a toolkit be of benefit - well yes definitely as long as it covered all eventualities and considered the different ways in which an OCG could be analysed”.

How much does policing learn from business?

Given the business analysis techniques that the research was built on were designed for and by businesses in the private sector, this seemed an appropriate question to ask. Through my own experiences in policing it has an edge of the rhetorical in it, as it is almost universally understood within policing that engagement with businesses needs to be radically improved. Learning from the private sector has been a centre plank of modern management speak for mid ranking officers seeking promotion for many years. Notwithstanding that, unlike the public sector, the private sector is not a homogenous block but rather made up of thousands of companies of varying sizes, structures aims and moralities. These further pose challenges for policing when engaging with the private sector, not least that when it comes to contract negotiation business are vastly more experienced than their police counterparts which often results in problems with service delivery and costs further down the line. Add in the challenges of allowing private sector personnel access to sensitive data and lack of financial resources in policing versus the profit driven nature of business and you can see the conflict that creates and why the responses below were recorded.

Several respondents said “no comment” (5Q7) “Not as effective as it could be”, “More focus needed”, “Poor”.

- (8Q7) “As a practitioner at the top end of organised crime investigation that we do not utilise expertise from other sectors such as business. The police use knowledge of what has worked well before in order to inform their activity going

forward. There is relatively little training for R&A staff and what is available does not use novel or emerging academically supported ideas".

(12Q7) "I don't think the Police service are effective in utilising information within each Force/ROCU as we have gone to working in silos looking at our own area of business. We are also probably unaware what is on offer to the investigation e.g. the expertise of linked sectors so definitely requires more focus".

Respondents 8 and 12 both say the knowledge the private sector has isn't best utilised by the police. Respondent 12's comment about police working in silos particularly resonates with my own experiences of multi-agency cooperation, and it follows that if police are not sharing knowledge and information effectively within their own teams then they are not doing so within other industries. Respondent 1 makes the point that policing as a whole is a different industry with different challenges and needs to that of the private sector. Overall, he is correct to make that point, and this reveals an inaccuracy in the phrasing of the question. The question fails to refer specifically to the elements of policing involved in investigating serious and organised crime. This oversight enabled the respondent to provide a generic, non-specific response.

(I15Q7) "It depends. There are obviously issues in working with the private sector when you are dealing with a covert investigation, but I don't think we are particularly good at using private sector experts. I think there are always concerns that private sector support is expensive and we would be seen in a negative light if we don't complete all the work ourselves, but experts would be useful - and probably save time and money in the long run!".

Respondent 15 outlines a key point that often stops cooperation between police and private sector, notably that: even if the funds are in place, the concern that law enforcement should have the capacity and capability to deal with all crime that occurs in their area without resorting to outside help. Changing these views would go a long way to expanding cooperation.

Is policing wary of change?

There were interesting insights regarding the rank structure of policing preventing change. As officers are often reposted into new roles every two to three years, they tend to be more naturally risk averse. Combine this factor with the fear of failure impacting the promotion hopes in turn restricts innovation. Respondents also identified that they would be more likely to innovate with senior officer endorsement. They also identified that once an evidence base had been developed, there would be a possibility for innovative investigative techniques to be adopted. However, speaking from experience, this is often a catch 22 situation as forces are often reluctant to trial a tool without an existing evidence base, due to resource issues. This means that even tools with potential often are not progressed and are restricted from gathering such an evidence base.

- (6Q8) "Policing will always be wary of change. The rank structure of policing, fear of risk, requirement to obtain 'a result' and ever shrinking resources all contribute to this. However, as an analyst I can see that this approach can complement instinct of analysts and officers. A tool such as this should only ever

be thought of as adding value and making suggestions, rather than dictating actions to be taken".

- (I15Q8) "Policing shouldn't be wary of change, and I think there are enough forward thinkers and younger members of staff to drag ROCU's forward (even if it is kicking and screaming!) It will never replace officer instinct - it can't, but it should be there to be used to direct, highlight target areas and support investigations so that the most impact can be made in the shortest space of time, costing the least amount of money".

- (11Q8) "Policing is wary of change but it has changed in a lot of areas in the past and has the potential for further change. Senior leaders buy in and endorsement is critical. Police will do what their bosses tell them to do. It is also important to sell them the work and show them the difference it will make. It's important to show them that there is still room for professional judgement but also show them that biases and cognitive distortions are real, everyone has them and so everyone can benefit from toolkits like this. It's important to show them that this isn't a criticism of them, but something designed to help everyone".

The overwhelming conclusion is that policing will always be wary of change and that a multitude of factors can contribute towards the 'perfect storm' that hinders innovation. This is not to say, however, that innovation does not occur, just that it often does at a slower level than perhaps it should.

- (12Q8) "I agree that this would work 'alongside' the investigation, but many successful cases have relied on 'gut' instinct and 'common sense' by walking in the shoes of the offenders. Many staff are wary of change but until this (U BATTLE) has been implemented and the results have shown their worth – whether more people will welcome and be willing to try these methods remains to be seen".

- (13Q8) "I think there is always a habit to say "this is how we have always done something". That being said there isn't time to develop a different way. If it speeds up a process and is straightforward then the police will go for the path of least resistance".

- (14Q8) "Yes - this research will benefit policing. I feel that policing may be wary to change, but following successful application, it would be adopted".

- (1Q8) "But if this type of research got the backing of Chief Officers then it would be easier to implement change".

- (2Q8) "Work alongside officer instinct. Policing will always be wary of change, but while OCGs continue to adapt so should policing".

- (5Q8) "Yes. Officers can choose to use it or ignore it, but it could help inform decisions. We now have to think about more creative ways of solving high level crime. Your tool may offer us this opportunity".

This section has explored the findings from the law enforcement survey methodology, examining the extent to which this was an effective methodology, how it flowed into the wider research and whether, while it undoubtedly provided benefit as a mode of delivery, if the manual mode of analysis and the format and wording of the questions, could have been better utilised.

Interview analysis

The Interviews were a vital part of the research methodology as they gave the opportunity for in-depth conversation with those with a high level of expertise. They also allowed ideas brought up in the survey to be tested, further enhancing the validity of the concept that underpins this research.

- Ten of the 23 are officers currently involved in organised crime investigation
- Ten are currently academics, with six of the 23 previously held senior roles within organised crime policing all and are now involved in academia
- 15 out of the 23 are current or former police officers and staff
- 2 are journalists with direct experience of interviewing organised criminals

Each interview was recorded onto a Dictaphone. The key points from each of the interviews were then transcribed; key points were identified by brief post-interview notes and listening to the recordings.

Once transcription of all 23 recordings was completed a thematic analysis was conducted, which split the findings into nine key areas. As with the survey the thematic analysis was conducted manually.

- The usefulness/accuracy of the research concept
- Where U BATTLE sits within the investigative processes
- Improvements to V3 of toolkit (shown to interviewees)
- Intelligence related issues: gaps, gathering, strategy and tactics
- How Organised Crime operates as a business
- Weaknesses of policing as a whole, in relation to organised crime investigation
- OCGM, MORILE and U BATTLE's place within them
- The challenges and advantages of Insider outsider research
- Definitions surrounding organised crime

The usefulness/accuracy of the research concept

Respondent 1 suggested that the tool would be useful to try and change the focus of the investigations [onto the criminal businesses] to advise surrounding interview strategy and to "chunk up the problem into individual elements": **"**It's the right direction we do need to understand them

better rather than keep taking drugs off them, we can't change the market at all". In all reality, it is unlikely that as a standalone piece of work, this research can change the entirety of what is a deeply ingrained concept of 'taking down doors', however there is a growing number of those within policing who recognise that in order to tackle the growing sophistication and business orientated nature of organised crime, we must look at the groups who are committing these crimes from a business perspective. Moreover, if this research, and the products which result from it, can aid analysts and detectives in doing so and thus gradually improve the awareness and use of this approach within policing, then that can only be a positive.

Respondent 3 described the concept as "very accurate": "These fraud OCG are being run like business it's just for illegal purposes, so all the same principles apply as to a legitimate businesses."

"(the toolkit would be) useful in as much as it would focus your mind onto areas of weakness that can be exploited. Useful as an overlay, the toolkit would have to be flexible, but with some fundamental areas. Nothing of similar scope to this happening in policing, not in terms of detail and methodology. What it's really doing is formalising a lot of knowledge that is in people's heads."

The realism and accuracy of this research was consistently cited by all elements of my interviewee group. Added into this is the broad acceptance of this concept from police officers with experience at a strategic leadership as well as a tactical and investigative level, senior analysts, as well by leading academics in the fields of business and organised crime, which can only be a positive endorsement.

The only dissent came from Interviewee 21, a former chief constable who initially introduced the phrase 'organised crime group' to policing, who was wary of the semantics of the word 'business' because he notes while from a structural similarities perspective there are similarities from a purely legal perspective the groups are not registered or legitimate in any way and therefore defining them as business in that sense could be a risk.

(Interviewee 21) "We've got this phrase we use all the time organised crime, some of them aren't that organised, the danger with the phrase is that all of them are lumped together. Some of them are like businesses, some are not. Strategically would be a disaster to lose the word OCG. I know I introduced it, I know it doesn't fit some of the high harm people, you needn't be an OCG to cause grief and harm. In my experience the most organised were the Albanians, if you wanted 20k of drugs delivered on this day at this time, you'll get it. There is organisation at the top end, they have facilitators, structures etc.".

"A lot of organised crime we have to deal with is more sporadic chaotic opportunity driven enterprise. The cartels now are blokes in suits with completely legitimate business, masking their activities. They are not hoodlums. It's the guy in the suit and tie who's having dinner with a government minister".

He goes on to say, semantically speaking, he would be cautious of saying organised crime is a business "In the broader sense of the word they are, but they're not in the sense that they're not a limited company".

Respondent 5 added: **"**You are categorising certain vulnerabilities and trying to ascertain where we have intelligence. If we go on the assumption that every organised crime, because it's organised, has a business operation, if we then [use U BATTLE) to say there isn't much intelligence in this bucket, say human resources, it can be uses as a tool to identify intelligence gaps".

“A bit like reverse engineering from a consultancy point of view if you were looking at a business, you understand their business process and make it more efficient what we’re trying to do is make it less efficient, the consultancy is essentially the evidence base”

As a number of the questions within U BATTLE toolkit were initially taken from techniques used in traditional business consulting, the reverse engineering concept highlight by Interviewee 5 is highly accurate and the understanding the business processes is precisely what U BATTLE aims to do to. He also makes the argument that the evidence base already exists for these techniques in a legitimate context, which certainly strengthens the validity of their inclusion. In a way, it also acts as a preliminary evidence base for their use in an organised crime context, because even prior to the actual testing of the concept, if the theory that organised crime is mimicking the structures of legitimate business is accurate it stands to reason that those techniques that have been proven to be effective at assessing the strengths and weaknesses of legitimate enterprises will also be effective at detailing the processes of the OCGs that are mimicking them.

Respondent 7 suggests **“**You don’t have to predict what they are going to do you can surmise what they are doing. If you export Class A drugs there are certain steps that need to happen]. He also makes a valid point regarding the challenges of implementing U BATTLE in a reactive policing environment.”

“It’s not enough to dismantle the OCG, you need to think holistically. A lot of this is due to managing demand, organised crime doesn’t come through one piece of intelligence it comes through then you have to join the dots, if you don’t have a system that can pull things together your missing those opportunities”.

The word system is worthy of further discussion, pulling the constituent strands of an investigation together and identifying in one document. From that identifying intelligence gaps and development opportunities is one of the key aims of this research and U BATTLE by extension**.** Whether U BATTLE is, strictly speaking, a system, is arguably more of a semantic discussion and certainly one that does not impact on any practical benefits and only tangentially on the academic rigour, therefore it will not be discussed further.

Respondent 8 identified an important issue surrounding the complexity of these types of investigations **“**There are so many things that might have an impact on your investigation, it will be difficult to disentangle the effect of your tool, maybe the tool was super helpful, but the investigation collapsed for different reasons”. He goes on to state that the only potential issues he can see is one of bias “People will say you have created the tool, you have applied it you have done a qualitative assessment afterwards”. Both points made here are worthy of further discussion.

To address the initial point first: that it will be highly challenging gauge the impact of the toolkit because there are a multitude of factors that can impact the effectiveness of an investigation, many of which are not related to either the intelligence surrounding the OCG or how it is applied. The challenge is that as the investigation interacts with the real world where, in essence, the tool developed from this research is binary (in the sense that the analyst applying U BATTLE reactively applies it to existing intelligence, makes suggestions surrounding steps forward and is applied at certain pinch points within an investigation which have been outlined above). However, there are other elements of the investigation which are outside of the control of U BATTLE which could have an impact on the results of the investigation. For example, by and large, we cannot control the actions of interactions of those under investigation, this factor must always be taken into consideration when assessing the effectiveness of the tool. We will now turn to address the second

point that Respondent 8 identified, which was bias. The respondent's statement is an understandable suggestion as the entire development process from the initial creation of a methodology to assess which techniques should be brought into the toolkit, to the continuous development of the precise questions that should be included, through a trial on first historical and then live cases was orchestrated by myself. To avoid being inherently biased towards my own creation, the survey and interview methodology was developed, which has allowed the insight and opinions of those within policing and academia to play a role in shaping the development and act as a counterweight against any voluntary or involuntary biases that may have occurred throughout the process. Furthermore, a blind feedback process was also instigated which enhances accountability further.

Respondent 9's view that a lot of the OCGs we've seen are "businesses, just criminals", supports the premise of this research, and adds that "The first thing you want to understand is how they operate, the first chunk of the investigation is about trying to understand the structure and the hierarchy of the organisation, how does it work, then you look at the weaknesses." Respondent 11 says the concept is "100% accurate" and makes the comparison to County Lines Groups [they] are run like a business with a CEO at the top. Chief operating officers then middle managers, then the vulnerable people being exploited on the ground".

Respondent 14 noted that the toolkit formalises existing thoughts that are "usually put down in bullet points". The current informal nature of strategy development has been a constant theme from both the interview and survey methodologies. The rapid and demanding nature of detective work has often dictated that the plan to dismantle a certain OCG often lies somewhere between residing purely in the head of the senior investigating officer and some brief bullet points following a conversation with analyst (should the agency in question have the resources for one).

The lack of a template is often explained by officers as being due to the fact that no two investigations, just as no two organised crime groups, are the same. As a consequence of their individuality, a formal and generically applied process would strait-jacket the detectives' innovation and initiative which is often crucial in a case. Conversely, there is an argument to be made, that while all investigations are different it is also true that all have certain key elements, this is supported by the College of Policing guidance (2019) which states:

"The type of activity investigators engage in and the material gathered varies depending on whether investigations use the reactive or proactive method. However, they all go through similar stages…In some cases the identity of the offender(s) is known from the outset. In others, the identity of the offender(s) may never be known or is discovered only after further investigation."

Respondent 15 said the U BATTLE assessment could be used to flag up opportunities for human intelligence specialists to exploit. The decreasing resources in this particular area of policing notwithstanding (Stanier 2017) this is an area of use that has yet to be fully developed. This is partly because the highly confidential nature of the activities of these individual means they are often reluctant to discuss their tactics in detail for academic research, even if the results could be redacted.

Respondent 17 believes the toolkit covers most of the angles and that the element regarding the 'threat of new entrants' is important: "When you've dismantled an OCG that's when you get the period of real unrest as there is a vacuum in the market, that's always the bit we seem to struggle with. Every time we take out key players all hell breaks loose". Interviewee 18 was very positive surrounding the state of the toolkit: **"**I think you've got it pretty much covered, I can't think of

anything that comes to mind that would revolutionise what you are doing, I think you're pretty much there".

Interview 19 was similarly positive, while Interviewee 20, who is one of the only other researchers active in this niche area of organised crime, made a series of highly perceptive comments surrounding the pitfalls of giving police officers *carte blanche* to quote business strategy speak to people without any real understanding of how this thinking can be used.

> It is very important forces are not just given a chocolate box of analysis tools. This needs to be something that can be translated into a practical process. What is the actual starting point for applying this kind of thinking? Clearly that is the available intelligence. Now it may be that the subject matter can be neatly fitted to a defined OCG structure; but more often than not, in practice, it won't. We have to have something then that doesn't encourage analysts to try and fit the Intel into a form that works on paper and not in practice.

Improvements to V3 of toolkit (shown to interviewees)

There was a wealth of specific feedback regarding the elements of the toolkit. This feedback was adopted into the final version. key elements of the feedback, and my response to it, are below. Interviewee 1 suggestions introducing a section on rewards/promotional structure- is it the same as in the legitimate world where if you are proficient you move up. Case studies of notorious criminals, such as Curtis Warren (Barnes et al 2005), Howard Marks (Marks 1996) or Pablo Escobar (Escobar 2010) indicates that it is entirely possible to rise up the ranks of a criminal organisation just as it is a legitimate one, while the methods of doing so differ, though those involved in notoriously cutthroat corporate worlds such as banking may disagree, the concept of progression remains applicable. Often organised crime groups rely on familial ties, so logic suggests those family ties would be exploited when a 'recruitment opportunity' becomes available. However, the clandestine nature of organised crime and their natural reluctance to engage with law enforcement and academia means we do not currently know this for sure.

Interviewee 3 raised a series of points relating to ability of the toolkit to cater for fraud OCGs, which differ significantly in their structure and modus operandi than the majority of other groups. He noted that, in order to be relevant to fraud, specific elements such as "how do they identify victims, how do they convince victims, ability to monitor and utilise current affairs to make frauds believable" would need to be included. He also said that the market element may not apply to fraud *"*not sure how the market elements works without a commodity, not aware of competition between fraudsters in this area*".* The question of whether fraud should be included in definition of organised crime is by extension linked to the question of whether it should be included in the toolkit which has been explored further in other areas of this thesis. Ultimately, the conclusions drawn by interviewee 3 cement those made at the end of this thesis, that, due to COLPs remit and my own desire to make as big an impact as possible within the field of organised that perhaps a separate but linked model, with separate categories for fraud would have been best, but that ultimately this would not have been possible in the time available.

Positively, Interviewee 4 suggested that all the investigative insight summaries (which were later redesigned as part of the overt and covert tactical dashboard concept) are valid but "a lot of it comes down to whether the SIO is aware of the tactic and has experience in it". He also outlined an issue of suggesting use of techniques such as surveillance "which is difficult and expensive and specialist very difficult to get authorised, other tactics that are less complicated". The issue of tactics

is a challenging one, and the concept that through analysis of existing information an analyst with no formal experience of practically instigating any of the tactics they are about to recommend should suggest an appropriate way forward to an investigator who has used those real tactics in the real world is one that is on the surface challenging. However, when you take into consideration interviewee 4's comment, that use of these tactics is often authorised based on personal preference from a senior officer, then an analytical assessment begins to make sense.

The issue that covert tactics are often both expensive and resource intensive, as well as being the preserve of those in 'specialist land' [police terminology for ROCU and NCA and other areas of policing that require specific training] is important to consider, with the implied criticism being that local forces using this tool will not have access to some of the tools that those higher up the OCG chain will do. The solution to this problem is a simple one. Rather than to produce separate local, regional and national versions which, given constantly shifting resources would get both complicated and out of date very quickly, we should trust the analyst [providing of course there is one] to know the capabilities of their own force and not to suggest a tactic or action that is beyond their resourcing levels. They also spoke surrounding the wider issue of specific intelligence relating to an OCG that would be important to add into the toolkit, either not being available or taking years to materialise: "There are definitely good points raised about surveillance and staffing and that being a way in particularly in a job with links to international banking systems you won't have the detail available [that's in your toolkit]. Some of the bank account details we have been waiting three years to get hold of and we haven't managed to get hold of".

Interviewee 5 suggested a format change, arguing that a formal assessment lends itself to a spreadsheet. The question of the final format of the toolkit, more specifically the battle between Microsoft World and Microsoft Excel is by extension a discussion of the merits of the two core fields of intelligence analysis, written assessment and numerical, and the question of whether this is the most incisive and insightful way of identifying an OCGs vulnerabilities and determining an effective way to impact upon them. Due to the author's experience within think tanks and journalism prior to policing there is a certain bias towards words. This is centred around a belief that a concise sentence has the ability to paint a more detailed picture than a statistic or score. However, again drawing on personal experience, managing performance indicators indicates that many within policing are not this way enamoured and prefer a spreadsheet over a summary. The fact that many of these indicators were changed on a monthly basis, and that they were of such quantity that senior managers paid little attention to them when they were able to be collected, adds to the viewpoint that scoring for the sake of scoring can be counterproductive. However, the fact this experience was not directly related to the OCG world and that the current OCG mapping system, and the MoRILE system for managing risk both incorporate substantial elements of scoring, means that if U BATTLE or elements of it are used to score OCGs and the threat they pose in the future some form of numerical representation is inevitable. The main question is that if it remains, as is currently planned, as a tool to develop and enhance investigative strategies or as an alternative to criminal business profiles, what the balance between numerical and written assessment should be.

In tandem with Interviewee 5 Interviewee 11, commented that the end product should be numerical rather than word based.

> Scores are nice because you can liaise with senior managers, score it up impact x likelihood = risk. If it then scores critical risk can take it to commander, Numbers is easier than narrative as it assists decision making narrative is much more subjective. However, numbers are easily malleable, one person's probable is another person's likely, one person's massive risk to reputation is another's embarrassment.

Interviewee 5 noted that the ability to corrupt and influence needs to be included, as well as vocalising thoughts about the next steps once the toolkit has been filled out, and that this must be linked in to MORILE and OCG Mapping. This then triggered an idea of my own that could put list of covert tactics at the end on a results-based weighting system which could suggest which tools to use.

The often silo centric way police work has already been addressed with this thesis and it is crucial that whatever format or role U BATTLE takes it does not add to it, that it links in with, rather than ignores existing measures.

> If you said you had low Intel on whether the OCG was using criminal enablers, how much effort is needed to find out, how do we do that what is the value of doing that. If there is a value we can then determine if it's worth disrupting, we need to know from a priority basis what we do first and what is the best source to obtain that (open source or covert).

Interviewee 6 suggested there should be more background on the OCG at the start, this was duly included in the form of criminality, x factor, capability and geographical scope: "Look at these business level considerations, ask what would you need to interrupt this interrupt the enterprise in a fairly permanent way that would be a compelling product".

They also noted that when investigating organised crime there are always only a small number of factors that matter, that will have any predictive ability. This triggered an assessment of the length of the toolkit, which has grown and shrunk over its development phrase, with the balance of attempting to add new criteria to enhance useability whilst ensuring it is not too long winded for use in pressured operational situations. The length and number of factors to be assessed have both changed dramatically during the development of the toolkit. Initially, each factor had its own section below for the analyst to fill out, however this lengthened the toolkit to such an extent that following feedback from IV1, an academic with experience of working with the police, who suggested that the toolkit should be split into three sections each with no more than five criteria and that any more than that would risk creating a complex document that would be off-putting to users. V3 of the toolkit which was distributed to survey respondents and interviewees; this version initially did heed the suggestions made around length. However, following the subsequent analysis from those methodologies multiple insightful suggestions surrounding criteria inclusion, ultimate use and length and layout were made, as well as the suggestion of an entirely separate section at the end relating to law enforcement tactics. This meant that the toolkit grew again in length and complexity, ultimately the balance between concise and insight is a challenging one, but as one interviewee said: "yes officers are busy, but that doesn't mean you should dumb it down for us, if it will be useful include it."

Interviewee 8 also made some observations around length of the toolkit urging succinctness: "Merge some of the criteria in each model keep it to 15 points in total 3 main sections. The shorter it is the less the cost to the investigation in terms of time". The converse argument here is that time spent enhancing knowledge of the OCG is not time wasted but well spent. Furthermore, the cost in time and resources can be recuperated through enhanced results at the end, with the already mentioned caveat surrounding the challenges of denoting the precise impact of a binary tool on an investigation and often directed by the vagaries of real life, making a positive impact against organised crime.

Interviewee 11, A Detective Inspector with experience in drugs and human trafficking OCGs, took the time during our interview to run through the toolkit point by point, noting, "What elements do the suppliers and buyers control- they're not words that I've written down before but it's an important

point“. I think this comment,, sums up rather aptly the new direction this research takes policing and the importance of combined knowledge of expertise that comes from experience within traditional policing and those from linked sectors, such as business analysis, that police do not have the capacity to fully exploit.

Interviewee 13 noted the similarities between U BATTLE as a policing tool, and the due diligence models employed by private sector firms, “I think you’ve got all the main ones you’re almost looking at it from the perspective of one business trying to acquire the other”. The potential application of this model to the private sector is by no means part of the remit of this thesis, but certainly an interesting aside. Given that the original component tools, such as those developed by Porter and McKinsey, were initially developed to provide advice in just such circumstances as Interviewee 13 suggests, his ability to recognise that without prior knowledge of the fact certainly speaks to the relevance of the research concept.

Interviewee 14 suggested a renaming of the business strategy section, as the word ‘mechanics’ would be more accurate they also suggested, ranking the criminal business skills included from high to low and splitting the awareness of police procedure down further to specific categories: Aware of Police and Criminal Evidence Act; Forensic aware; and Surveillance aware. They note that covert tactics would fall out of various sections, i.e. human capital, “is there a place for Covert Human Intelligence Source- can we get an undercover officer in there, what is the best route, how do they choose the right people”.

Interviewee 15 gave a range of suggested improvements to the toolkit which were incorporated into the next version to be trailed, they noted that:

- The categorising of staffing gaps is both a vulnerability for the OCG and an opportunity for investigation, “if the OCG suddenly needs someone who is an accountant you can get your undercover officer to pose as an accountant”.

- “Why call it vulnerabilities?”, not vulnerabilities and opportunities, the lexicon of policing always talks about risks and not opportunities, looking at what could go wrong rather than go right, i.e. look at the operational exploitation of vulnerability.

- What you are talking about is skills deficit what skills do they need that they don’t have i.e. pilot or HGV license?

- Concept of motivation, how do I recruit you to my business, one of things is rapport, if demotivated you are vulnerable to be recruited. How are staff/talent identified obtained recruited, motivated?

- Innovation- future orientation- moving to new market. How do they evolve, adapt, and innovate?

- Adapting to internationalisation. How do you negotiate with a Columbian drug dealer if you can’t speak Spanish?

- Start with line about taking similarities from legit to illicit enterprises.

Interviewee 16, an academic and former police officer, highlights key questions surrounding language and the challenges of ensuring the wording in the toolkit is precise enough to inform those

using it of how you want them to proceed, without the needless insertion of business jargon which will have the effect of putting off officers and analysts. These officers and analysts are already used to their own unique form of jargon, therefore, jargon could be a potential barrier to their applying the toolkit if the words and phrases are not instantly recognisable.

Interviewee 18 suggested use of critical success factors as well as including the OCGs business disaster recovery strategy/contingency plan. If your shipment is intercepted how do you recover it- and the succession plan i.e. who might succeed if key members. The idea of a recovery strategy was integrated within the toolkit, however while the concept behind critical success factors was deemed accurate, namely that there are certain key elements in an OCG that if targeted can inhibit the way the group operates. These are, however, covered elsewhere in the business operation vulnerabilities section of the toolkit.

Furthermore, Interview 19 also aired concerns regarding the language used in the toolkit.

> Think carefully about some of the language you use [police rather than business] for example, the OCGs business plan, using language like that to investigators will irritate them, I know exactly what you mean and where this is coming from but if you're going to use a word like business plan I'd put criminal objectives in brackets. Don't just use business language, put the two down together, to ensure police won't be turned off by it

The practicalities of this suggestion were complex as the toolkit was already growing in length and complexity, without translating the key points from policing to business speak. Therefore, it was decided to only repeat the language once but to keep it as simple as possible. While in theory the suggestion of a dual 'translated' version of the toolkit sounds promising, after a practical trial the result is messy and confusing, while also adding to the already considerable length of the document.

Interviewee 20, who has significant expertise in the area of applying business analysis to OCGs, says that the best way to approach this research is to concentrate on what the nominals who make up the OCG do, and define the OCG in terms of what it does.

> This itself actually may mean re-defining the OCG as we envisage it. For example, what it does may so involve some form of collaboration with another group or else a 'service provider' type function, which itself will serve more than one OCG, but is crucial to the functioning of the target OCG process. You derive the OCG in accordance with its processes in other words.

This is a key example of the fluidity of business language, on one level policing already does this as its splits organised crime into its various constituent elements and there must be consideration surrounding the operational policing benefits of further business analysis to avoid the point interviewee 20 makes later on regarding analysis for the sake of analysis. Essentially, the key to both the Jackal and U BATTLE processes is the intense alignment to strategic, tactical, and operational element of organised crime policing. It is not just an exercise in knowledge gathering. It is the whole point of the matrix to capture all relevant intelligence in that form in order to provide a coherent picture of the constituent parts; the essential inputs to whatever form of further analysis you might consider appropriate. The Porter five forces, for example, might start to make practical sense once you have the intelligence grouped in this way. The idea behind using Jackal essentially as a groundwork tool before the application of techniques such as Porter's 5 forces, is worthy of further consideration, however there are several issues on the horizon. The first is that as the designer of Jackal. In this issue, the interviewee is understandably precious therefore he does not want to encourage an application of his model outside its original purpose. The second is that applying Jackal

in its entirety followed by U BATTLE adds another layer of complexity to a process that by its very nature will not be quick.

"What JACKAL seeks to do is understand how the SOCG survives as much as anything else; in particular it seeks to highlight the interfaces between legitimate and illegitimate activity wherever such an interface exists, disruption opportunities exist" (Interviewee 20).

He goes onto provide some key insight around the purpose is in identifying vulnerabilities which feeds into being clear about what kind of vulnerabilities we are most interested in identifying.

> We are not stock analysts monitoring the attractions or otherwise of an investment in the equity of these enterprises. We are interested in more practical vulnerabilities such as knocking out the legitimate logistics company an OCG uses to distribute its products or jailing the businessman that provides a portal for the OCGs dirty cash to enter his businesses revenue streams.

Interviewee 20 accurately states that we must be clear about the purpose of the analysis, "We are using our understanding of the business through these techniques to be better informed about how to disable it, not to analyse the roots of profitability for its own sake." Furthermore, He then goes onto opine on the best way to use these methods to make a real operational difference.

> The easy thing to advocate is the 'identifying of vulnerabilities', but how do we do that in a way that law enforcement can relate to? I am not talking about identifying an opportunity/something that is easy to identify, but something which has a real dismantling effect on the relevant business processes, so it isn't a case of the OCG just being able to re-man and carry on as before. I feel this area in particular is where your [the author's] ideas have a lot of potential. For example, some kind of modification of Porter's five forces could maybe be turned into something that officers could really relate to, so that they use a better understanding of the relevant business dynamics to develop an instinct for where they can really hurt an OCG

Interviewee 21 suggested avoiding the phrase business plan, preferring: 'how does the OCG work?'. They also suggested separating the toolkit into the analysis section and the law enforcement response.

> You have your business/OCG strategy and in parallel you have to have your documented law enforcement strategy. There is a model about developing something about the OCG themselves as a business and secondly what are we going to do about it. Almost like a diagnostic. Every question you pose should be able to generate a law enforcement opportunity.

The diagnostic comparison is a valid one, I feel. According to the Cambridge dictionary (2019), a diagnostic is "used for making a judgement about what a particular problem is"; U BATTLE is essentially a diagnostic tool using business analysis for a policing purpose.

Interviewee 21 also spoke about the tactics section of the toolkit, noting that NCA Covert compendium and College disruptions were "pretty comprehensive when taken together", though they also warned that "Reality is that not everyone will have access to covert tactics and will not be able to tackle full extent of criminality, need to recognise that". One potential logical solution could be to providing two versions of U BATTLE, one which will be linked to the college's overt manual, and one linked to the NCA's covert version which will allow those at a force level to determine what the

best tactical options may be in line with the resources they have available. This is something to be considered at a later date.

The interviewee also gave insight into multi-agency response section of the toolkit, noting the need to think about other agencies' powers HMRC have draconian taxation powers; trading standards also have a raft of civil enforcement powers. "As things develop are we open enough to bring in other partners which are not law enforcement and judicial. Each element of the model needs to reach across to a second spreadsheet with police responsibilities". The logics of a creating second spreadsheet would complicate the document, however the multi-agency idea has huge operational benefits in allowing agencies with other remits and powers to assist in tackling organised crime. As such, it was allocated a separate question in the law enforcement strategy element. Furthermore, it was their suggestion to adding in community view of OCG, highlighting evidence of tolerance, in Salford, in Ireland with the IRA and after the 2011 riots where it was the OCGs that the Turkish and Albanian diasporas looked to protect their premises, playing a quasi-social services role.

Interviewee 23 suggested there should be legislative integration within the toolkit and also that CHIS opportunities should be included "Add in specific elements of legislation that tie in with the questions you are asking. You might want to include it investigative opportunities section at the end of the document". The legislative element is important as it underpins the legitimacy of police actions, the question however is whether the inclusion of specific elements of legislation enhances the analyst's knowledge of the OCG so they can present a possible strategic solution to detectives.

Organised Crime as a business

This section outlines the practical operational experiences of how organised crime acts as a business adding rigour to the existing academic perspectives. Interviewee 1 noted that while the groups act like businesses, business they are not governed by traditional business protocols: "a lot of these groups are chaotic, if there's a meeting a 3 o clock they might not turn up till 7 or at all".

> The big gap in our knowledge at the minute is around financial crime vulnerabilities. If you look at volume crime for Serious and Organised Crime, it is very cash rich, so where does the money go? The strategic and technical elements of how you get the money into the system, and what that looks like, is a big gap. Not every OCG has that capability which leads into the recruitment of a professional enabler.

The comment surrounding the intelligence gap around financial vulnerabilities is represented of a wider issue within policing, as we know the Jackal methodology does precisely that, but because Scotland differs jurisdictionally from England and Wales that adds another silo and barrier to an organisation already renowned for not sharing information. This means that a potential solution to elements of these problems [in Jackal], could already by available and a short distance away, but policing is not aware.

Interviewee 3 noted that in one big fraud case they worked on, the meetings were minuted. This technique was very useful for trying to keep track of a complex cases. For U BATTLE, as it would be for any intelligence product, access to the minutes of a OCGs meeting would be a gift. The use of a common mechanism utilised traditionally by legitimate businesses also highlights the accuracy of this research concept. The interviewee also spoke about the ability to use multiple companies, "Branding is important there might be 15 firms offering the same thing, but in reality they are just two groups of people. You can register a company in 20 minutes and get a virtual office for £25 it is difficult to map the market." It is anticipated this could be particularly relevant for frauds where

details such as minutes could add valuable detail and where a CHIS could be tasked to gather information around the business structures in the early stages of the operation.

Furthermore, interviewee 3 highlighted the extent fraudster's replicate legitimate businesses, which illustrates the core concept of the research.

> The people who operate these businesses are doing it as a job, it's a career, with fraud people seeing it as a grey area, there is no emphasis on the fact that the product is being vastly oversold or doesn't exist the process they go through is so close to a legitimate business that they (fraudsters almost see it as that). The fraud is run like legitimate business, the only difference is the deception of the customer, and they'll have HR departments, IT, Secretary's etc. all of them who believe they are working for a classy legitimate company. If you're in a London office with a contract why would you think any different, if you're at the lower level you won' be given the details

In addition to strengthening the academic rigour of this paper, through first-hand evidence, this ability for fraud OCGs to accurately replicate these structures certainly strengthens the argument that a product generated from this research could be applicable to OCGs involved in fraud, as well as those involved in commodities based criminality.

Speaking evidentially, as the two fraud cases obtained were both trialled on much earlier versions of U BATTLE which did not have the benefit of the multiple insights and improvements gleaned from the survey and methodologies, further trials on various stages of ideally several different types of fraud investigations would be needed to strengthen the evidence base to a point where policy implementations could begin to be made. As multiple other case studies, of different crime types, encompassed the research, this means that this wasn't possible. This further supports the argument the research was too broadly focused. However, the evidence provided by interviewee 3 strongly suggests that fraud OCGs replicate legitimate business and therefore, that a practical policing tool devised from such research could be of use.

Interviewee 5 states that OCGs tend to do whatever's easiest and whatever is most available, "i.e. they will trade counterfeit handbags because you know a guy at customs or down at the dock who has access to them". This is supported by a conference presentation I listened to in April 2019 (Mariano 2019) where a former US Federal Agent outlined a trend of OCGs on the US East coast switching from cocaine trafficking to cigarette smuggling because the risk was much lower but the profits were similar: i.e. there was lighter sentencing and less law enforcement focus yet similar profit margins and gains to be made.. Furthermore, this is again similar to how many haulage and logistics companies also validate the risk and reward theory. The risk and reward theory concept (Criminal Justice Research 2021) argues that an operator, whether legitimate or illegitimate, will take the option that is both easiest and has the least risk and biggest profit associated with it.

Interviewee 5 also touched on a bigger issue of overall strategy against OCGs, which is too complex to go into more than briefly.

> If you just keep arresting people to an extent you are just spinning the wheels as others will take over and you haven't done anything about the market. Bigger picture these individuals are operating as an illegitimate business. you have to go after them as one.

As a number of casual first-hand conversations with senior detectives indicate, there is certainly a growing element within the police who believe that to solve organised crime you can't just arrest your way out of the problem. However, while there is agreement of what shouldn't be done, the

response regarding how policing should proceed is far from uniform. Interviewee 7 also remarked on the similarities of legitimate and illegitimate entities.

> If you have a product, whether illicit or licit, you need a way of sourcing the product, you need a way of transporting and retailing the product. A lot of the markets OCGs are entering can require legitimate businesses IE Solicitors and banks. From a market point of view you want to block off opportunities, professional enablers are opportunities for OCGs.

It is these links that span the white, black, and grey economies that allow organised crime to flourish, creating the structures that allow groups to turn their often cash-based illegitimate profits into taxable resources that offer them legitimacy. They also made a highly relevant point surrounding the proactive nature of the majority of the tactical recommendations made within the U BATTLE case studies, which tallies in with the comments made in the earlier sections of analysis.

> A lot of organised crime in the UK is dealt with at a local level, the kind of action you are proposing requires time resources and capability. It's proactive not realistic anywhere lower than the specialist organised crime teams within the force. Proactivity is the preserve of these very specialist teams, you want to be able to get as much bang for your buck from that productivity, if your tool can guide them toward that that's a good thing.

Interviewee 10 notes that trust between OCG members is less than that of those within a legitimate business "OCG members tend to not travel to assignments alone, not just because they will be scarier as a group but to control each other. Legal business are goal oriented, not necessarily the case in criminal organisations, lots of similarities but important to emphasis where there are slight differences". The issues surrounding trust, or a lack of it, highlight that there are operational differences, aside from the obvious legality, between how groups in both areas operate. It appears that illegality enhances mistrust.

Both interviewee 11 and interviewee 12 draw high level parallels with the operation of legitimate and illegitimate businesses. Interviewee 11 suggested that a lot of the higher-level criminality originates out of places like Spain, and that they work "Like an international corporation albeit working with criminal commodities in a hostile environment". This parallel is key as it underpins the entire research concept.

Interviewee 12 speaks a about a similar model being employed by the Mexican cartels, who overtook Colombians sometime in the first decade of 21st century in terms of being most powerful and well organised: "They are the most accurate example of OCGs acting like businesses". A further question is the extent of the permeation of this concept throughout the pyramid of organised criminality, noted below. If the Mexican cartels are the corporations of organised crime, the question of whether other OCGs that operate at a lower level of criminality also take the corporate model or, do those lower down the criminal pyramid mimic those lower down the legitimate pyramid. This research can only partially quantify the former through scholarly sources as the opportunity to trial U BATTLE on the Mexican Cartels has not yet arisen. The latter is difficult to quantify for several reasons, namely the huge variance depending on activities of both businesses and OCGs.

Interviewee 12 notes that there are intense parallels in the way the Mexican cartels split up their operations to the way corporations do, for example use of franchising, corporate social responsibility and merchandising. For example, a quick internet search reveals that you can buy t shirts with the logo of the Gulf cartel and Los Zetas from certain stores (Zazzle 2020) which is in itself remarkable. Interviewee 12, an expert in both economics and the operation of Mexican Cartels, notes that:

> The concept is applicable all the way down the tree of organised crime, not in the sense that Colombian peasants growing coca leaf are reading business manuals but in the sense that all of the people involved this business whatever the stage are basically responding to economic incentives, for that reason they behave in the same way that regular business people do, just for reasons of economic logic, it's not that are reading McKinsey's latest reports it is that they are motivated by the same things that motivate regular businesses.

The latter part of this is important, as a key criticism of this research trope is that to in order for criminals to act like a business, they have to be aware they are doing so and aware of concepts such as business strategy and business analysis. The reality is that the informal nature of criminality means that, at its base level, the simple exchange of money for a product on a regular basis. A formal scale of the extent to which particular levels of OCGs mimics legitimate business has never been created and, it is hoped, could form part of the conclusions of this paper. Both interviewee 12 and 13 note the differences in the personnel of those involved in illegitimate and legitimate enterprises. Interview 12 argues: "When Colorado legalised cannabis the kinds of people you get running those legal drugs companies are different to the illegal side of things, one of the things we haven't seen from the illegal industry is a move across. It's a completely new set of people". He argues that, consequently, the skills you need in an illegal business are different to those you need in a legal one, because physicality and street smarts are elements less prized in legitimate business but crucial, or were, in organised crime. As Interviewee 13 goes on to explain, describing the evolution in criminality over the years:

> Physical strength has become less important in terms of who should be in charge its far more about the knowledge of business, of logistics about marketing and research and seeing new opportunities because of that it's changed the nature of the people that have come along. Those who rise to the top have more brains than brawn, a reflection on the type of people who are running these gangs, on a wider scale you it with the American mafia in New York, they are very low profile, El Chapo is 5ft 4, you don't need to be physically intimidating anymore, you need to be smart.

Interviewee 13, goes on cite the creation of crack by Colombian cartels in the 1990s as an example of innovation that would not look out of place in a legitimate business:

> As the cocaine market was saturated, they found a way to create a new product and introduce it to a new market, the process of making a smokeable form of cocaine so you could sell it in smaller amounts hitting the people who would spend 5 or ten dollars rather than 60 dollars for a gram of powder. That was a very deliberate process, then it was about going out and giving it away to build the market up.

They go on to add that as the age demographic of those involved in this type of criminality rises, through experience they become more professional.

> Being in a gang used to be a rite of passage where, previously you would have gotten to the point where you would have gone off and got a proper job, however, the circumstances have changed and you can now make a living from the 'rite of passage' itself. Due to this change, we can see that the demographics of those who are running street gangs are no longer just in their early 20s but are now in their 30s and 40s. As a consequence, they are running the gangs in a far more professionalised way.

Interviewee 16 talks about how OCGs recognise supply and demand economics, and employ a business model where they recognise the market place and the demand for the commodity:

> They will identify the suppliers they will negotiate with those suppliers, identify routes into and through the UK. The type of commodity is irrelevant really. They are always looking at making it more efficient, if they can go direct i.e. to Colombian drug suppliers rather than a conduit and make more money then they will do. If I was importing glass I would be doing the same thing, they are very much mimicking legitimate businesses.

Interviewee 12 extends the idea that OCGs operate like businesses to the role of the police, comparing law enforcement to the equivalent of the regulator: "Companies can do what they like to a certain extent but have to play by the rules of OFCOM or OFGEM. You can expect them to lobby for terms favourable to their industry (in this case via bribery or intimidation". While the police have more powers than many regulators, for example the much-criticised Independent Press Standards Organisation, there are those, particularly victims of crime, that would argue the police are just as powerless.

Interviewee 18 talks about business analysis techniques and addresses a criticism that many business strategy tools such as Porter's and McKinsey's pre date the introduction of modern technology, such as the internet, arguing that the age of the tool is irrelevant, because the underlying principal is sound. "CATWOE was used as a business analysis tool in the 80's and has never really been replaced, you might get another tool by someone, but the underlying principal of business is the same, just the technology changes".

Weaknesses of policing as a whole

This section examines the issues that are halting the progress of research within the police and in particular how this impacts innovative research such as this project. Interviewee 3 noted that policing is not that good at taking expertise from others but getting better, "we are now more alive that there are things around that can help us". Interviewee 6 noted, very accurately in my opinion, that the police are not good at sharing information even if it's old information. Anecdotal evidence from personal experience suggests that there is a policing purpose exemption in the recent GDPR Act (2018), which regulates data sharing when there is an academic element to a research project which has the potential for police data to reach the public domain. However, there is an inherent wariness in doing this, particularly when the data relates to the activities of OCGs. It is not quite the case that the default response is negative, and it is certainly easier (and less useful) to access historical cases, though the pendulum certainly swings in that direction. Personal experience suggests it is not the case that police do not welcome the research. In fact, they often see academia as a beneficial method of conducting low-cost research their own resources prohibit them from doing. It is more the fact that, as an organisation policing, arguably understandably so given their close interaction with the public, they are more risk averse. This risk adversity is combined, as the interviewee, an academic with considerable global expertise in criminal markets, notes with a lack of patience regarding how long research can take.

> The thing that struck me was that you are looking at a lot of different elements and my experience in the US is that in policing there is not a lot of patience with models. Unless they see a very clear connection at the beginning, you will need to have a small number of rock solid case studies that you could present in advance. You must prove the validity of your approach before you get them to consider using it.

The validation the interviewee speaks of was the purpose of my two-stage methodology: looking at historical, then live, cases. The eight historical cases provided a testing ground for the applicability of numerous business analysis and change management techniques to analyse the weaknesses of

OCGs. The following tranche of live cases then tested the key questions that sit within those techniques and adapted them for a policing purpose. The blind feedback then confirmed the operational utility of such a product.

Interviewee 7 noted that big businesses are great at pulling together huge amounts of data and analysing it while law enforcement aren't. From my own policing experience this rings true as forces often bring in private sector companies, such as IBM, to deliver complex new systems that they do not have the ability to, due to a combination of personnel, resources, and capacity. The ability, or lack of, to exploit the opportunities offered by the private sector, and conversely the instances where the police, due to naivety or lack of understanding, have been exploited by the private sector could fill a separate thesis. Therefore, it is understandable why the two entities are often not easy bedfellows.

Interviewee 8 noted that the appointment nature of policing is a huge problem for the capture of knowledge: **"**No one has any memory in policing, everyone moves roles so quickly, and if you ask them about what happened years ago they don't know as they were doing something else". This is a highly relevant point. Police officers often move roles every 2-3 years, which can restrict the ability to develop a specialism. While the specific regulations around how and whether officers move roles differ between forces this is an issue prevalent in every force, particularly at middle to senior level where moves are more frequent due to promotion ambitions.

Interview 13 echoed the view that policing doesn't use outside experience very well, using the example of the introduction of forensic science laboratories.

> When forensic science first came about detectives were wary as they said 'investigating was about talking to someone finding cracks in their story' and 'if I'm using science I'm not being a good detective', when the lab first opened no one wanted to use it. Unless there is a major change in the way we police things we will end up even further behind the criminals.

The example of forensic science is particularly telling, as now forensics are a key part of almost any investigation, and it demonstrates that it is possible for a process to move from scepticism to acceptance should the evidence base be strong.

Definitions

Interviewee 22 suggested, given the developments in criminality that have occurred since its introduction, that it might be right to introduce a replacement term for OCG, something I have endeavoured to do.

> Not entirely sure OCG is the right word going forward, has some tight definitions and not sure it's the right model moving forward for us to measure organised crime. In the cyber world, there will be someone with criminal intent who wants to go into DDOS or ransomware, they will tend to hire someone with those skills for the lifecycle of that crime through people that they've never met, and there is a whole ecosystem out there who know each other through their cyber identity, whole network of people. They don't operate as an organised crime group they operate as a franchise with serious and organised capabilities, I think as crime digitises there will be more of that. There is certainly a debate to be had around phraseology, sex offenders don't fit, look at other side people who are organising themselves around online CSE buying or importing it, they are acting as networks but not organised crime groups.

Interviewee 21 also spoke of definitional issues, they suggested New Organised Criminality Networks which I think captures the spirit of how the groups operate, but still doesn't separate CSE offenders who have entirely different motivations. The Interviewee also suggested including a definition for vulnerability "By vulnerability you mean these are the different facets of operations that are susceptible to being targeted by enforcement so provide an opportunity for intervention", this definition will be included as part of the U BATTLE entry criteria alongside Interviewee 10s simplified definition of a criminal business model "how do we make money".

Throughout this research the phrase Organised Criminal Enterprises (OCE) has been used, which would classify the top-level sophisticated groups that fit the U BATTLE entry criteria. Following this it would be possible to then redefine OCG so that it fits underneath this; i.e. in the scale of organised crime depending on how they operate groups are either OCGs or OCEs. It is hoped that once this research gains prominence the term OCE will permeate itself into policing. It is time to think beyond OCGs, and while from this research it is clear policing could often be accused of being resistant to change, this should not detract from the evidence, which clearly points to OCGs acting in a business focused manner and specifically the evidence from this research which has determined there is a policing use for adapted versions of business analysis techniques. This section has scrutinised the content gleaned from the application of the primary face-to-face methodology, it has collated and assessed the wide-ranging suggestions made by interviewees regarding the applicability of the core research concept, and also of a practical policing product that would flow from this. These assessments were then taken and used in the development process of the next version of U BATTLE which was historical case trials.

Where U BATTLE sits within the investigative processes

Interviewee 1 notes that it is important to determine who owns the research in both an investigative sense, and in the sense of where in the investigation the tool is best placed to sit and whether responsibility sits, with the SIO, LRO, lead analysts or a combination: "if this was part of the SIO strategy that might help, and does it sit with the intelligence leads".. Tactically speaking, evidence suggests the feedback from the survey and interviewees indicates that it would be of most benefit to the type of groups that sit within the purview of the Regional Organised Crime Unit and the National Crime Agency.

Interviewee 4 notes that U BATTLE would have to come quite early in the investigative process. "You would have to use it in your intelligence development stage somewhere between where your happy you have an offence to investigate, and you are taking that forward. Seem like a tool that would build the picture before executive actions and arrests".

They also note that this sits much more in the realm of analysts rather than SIO territory, suggesting:

> Get an analyst in early doors with this in their back pocket talking to the investigator about the job the nominals the locations, the methods of communications, they can build a picture, come back say this is what we've build and instruct investigators where to go next and what to focus on.

Feedback from the National Analysts Working Group (NAWG) following a presentation in October 2019 was wholly positive and noted that U BATTLE looked like a more detailed and up to date version of a criminal business profile, a tool developed by the National Policing Improvement Agency (forerunner to the College of Policing) in 2004. Unfortunately, a template of this appears not to be available either on the POLKA database, within the College of Policing, or through any relevant individuals in policing.

This means that a detailed comparative analysis of the similarities of the questioning that sit behind the two documents cannot take place. Having developed the toolkit without seeing a profile, it would also have been interesting to see the structural similarities that arose. The UNODC Criminal Intelligence manual for Analysts (2011 has the most publicly available detail and describes a criminal business profile as "Revealing detailed operational modality, including: How victims are selected, Technical expertise employed by Offenders and Weakness in systems or procedures which are exploited by offenders".

Incidentally the seven years gap between UK introduction and UN adoption is perhaps indicative of the reason law enforcement is always one step behind organised criminality It goes on to describe its purpose as highlighting needs for changes in: Legislation or other form of regulation; resourcing to meet new threats; operational planning in ascertaining key points for disruption; immediate crime prevention/reduction opportunities; and raising knowledge standards through training and briefing products. It would appear, the caveat of drawing a conclusion without actually seeing the evidence of the document first-hand notwithstanding, that the conclusions of the NAWG tally with the UNODC definition and that, despite doing so blindly, U BATTLE does act as a more detailed and updated criminal business profile.

Respondent 9 suggests the tool could be used when the intelligence requirement is being set out: "Actually putting in these terms in setting the intelligence requirements then whatever assets you are using, undercover officers', human sources or open source ,at least you are focusing the minds of people doing the intelligence work for you". However, in addition, they go on to say that: "You could put it [toolkit in at any point] and it would be a useful review process to say what gaps we still have"**.** Interviewee 11 notes that you could utilise the toolkit to cover the bases before writing up an investigative policy, after an officer has come to you to discuss a job. Respondents 9 and 11 both make similar suggestions around U BATTLE being used as a review process, the former at the beginning of an investigation as a tool to highlight intelligence gaps which on balance is an intelligence use that it was not initially designed for, however it does seem suited too. The later suggestion sees the toolkit act almost as an insurance policy on top of, rather than as part of, the investigative strategy, which could be beneficial.

Interviewee 14 gives some insight into how investigative strategies are developed "Currently the strategy process, while it sounds formal when you say it aloud is essentially sitting down with an analyst for half a day and saying what are we going to do". This feedback underlines, as already mentioned, the informality of the police approach to OCG strategy development, an area that can be dramatically improved.

They also support other interviewee's views that the toolkit would be best suited to being applied by an analyst.

> If you have a crime analyst you could give them this and leave them to it, if you don't [many forces don't] the checklist would come in useful when officer and [whichever type of analyst is available] sit down and say have you thought about this, there is only so many analysts and they haven't got the time to do a full analytical product on every OCG.

The notion expressed here, that the tool could be useful adding to an officer's analytical abilities when, as is often the case the investigation lacks the required analytical resources, is both a comment on the state of policing in the UK and a positive testament to the applicability of the U BATTLE as a concept.

Interviewee 15 asks a key question “Operationally what would success look like?”, by coincidence this is answered rather eloquently by Interviewee 16, who details an ideal world scenario where U BATTLE is in use at several points throughout the investigative process, from before the investigation officially begins and as a review mechanism while it is ongoing.

> It sounds like it would be useful at the start of an investigation and also 12 months in and the intelligence picture has changed slightly. In an ideal world 6 months prior to official allocation you do could your intelligence gathering and identify vulnerabilities. However, it doesn’t work often work like that as you don’t know when investigations are going to end. This would mean that when I start the job you are giving me a package with the risks and vulnerabilities associated with the OCG, however you don’t always have that luxury.

However, as he identifies, despite the potential benefits of having an intelligence package that details each element of the OCGs operation and their associated weaknesses, there are practical issues around this. Namely, that an officer does often not know which investigation he will be allocated in advance and that as investigations are often conducted in time constraint, circumstances it is unlikely for the senior officer responsible to have enough capacity to begin to build up intelligence around a future operation while still concluding the current on Intelligence related issues.

This section of thematic analysis considers issues surrounding current intelligence processes. Interviewee 1 suggested that if U BATTLE was incorporated it would start to raise intelligence awareness around the mechanics and parameters of operation: “[t]he skill will be finding the right OCG to apply this to They might appear to be a business, but you just find they’re some tough guys with some guns and a bit of power and money at the time.”

This is certainly a valid point and is the reason why the entry criteria was developed, as it would be entirely counterproductive to waste valuable and scarce analytical resources running a U BATTLE analysis on an OCG that is not suitable as it is does not operate with a sophisticated manner.

Interviewee 3 was very forthright about the state of intelligence around organised crime arguing that “[the] bottom line is we’re not capturing the intelligence from these cases. There isn’t a document that outlines if you want to investigate an OCG from a business perspective then you need to ask these questions.”

He also spoke about resourcing issues: “At the minute the problem is intelligence, if a phone is seized it has so much content on it then the contents of it wouldn’t be routinely logged [at his force not nationally] on intelligence databases as otherwise the investigators would do nothing but log it. When you do the sort of reactive large jobs we do we don’t have the capacity to break out the intel properly”.

This rather gloomy assessment does have a silver lining, highlighted in the second paragraph, that there is no document that currently performs the role U BATTLE professes to, this certainly presents an opportunity for implementation, though this will not be a quick or easy process.

Interviewee 8 noted that the quality of intelligence is key: “No matter how good the model is if you put poor data in the outcome will be poor”, interviewee 9 also commented that getting the information that is required to populate could be difficult, “as they don’t produce annual reports or publish organograms”. This last comment while on the surface sounding facetious, is accurate and enhances the argument for using U BATTLE as a tool to best direct the use of covert tactics.

Interviewee 16 added to this noting that, “it is very hard to get an intelligence picture that’s ahead and waiting, generally you’re a step behind”.

Being ahead of the curve in terms of what an OCG will do next, or acting proactively rather than reactively, is the gold standard of intelligence, the reality of organised crime combining with long running resourcing issues within policing means this is often little more than a pipe dream. However U BATTLE, specifically some of the questions around identifying an OCGs disaster recovery and contingency planning, with the caveat that if the resources are there to put the processes of obtaining the intelligence into motion, could have the ability to change that.

OCGM and MORILE

This section looks at how the research fits in with existing methods of assessing the strengths and weaknesses of OCGs. As interviewee 16 pointed out, if this is being pitched as a replacement model (whether that is the best adaptation of U BATTLE is yet to be determined) the first question someone will ask why is it different, and why does it offer better validity than MORILE. The short answer is that it looks at the OCG from a business perspective, whereas other systems do not. However, the question is more intriguing when it is expanded: should U BATTLE be looking to build on OCGM and MoRILE or reinvent it entirely?. Given the relative age of OCGM it would seem logical to develop an entirely new system based on a business focussed approach, combined with factors that more accurately identify and measure organised crime in the present day. However, this must be balanced against both achievability and law enforcement engagement. In particular, surrounding the latter the current appetite within policing is to redesign rather than reinvent, whether that is the right decision long term is another question entirely and one not within my power to alter.

Interview 17 noted that the difficulty with any risk assessment is trying to get that balance between length and information. This has been a particular challenge when developing U BATTLE as, while brevity is key in an analytical assessment, the parameters surrounding the use of the toolkit mean that the amount of intelligence available on specific OCGs is often lengthy and detailed.

Interviewee 14 was scathing around the current OCG mapping capabilities in policing, saying he had “Nothing good to say about OCG mapping”. Adding, “The general view in policing is that OCG mapping is rubbish, it doesn’t give you any value they don’t do anything with the stuff when they have it, just give it you back in another format.” While on one level this is worrying given the scale of the threat and the importance placed on countering organised crime by the government (Home Office 2018) on another level these failings present an opportunity for improvement. Interviewee 19 supports interview 14s view that OCGM is flawed and provided an insightful anecdote that highlighted scoring inconsistencies with OCGM noting that much of the data that populates OCGM isn’t corroborated, “it can be from human or open sources, it’s what we think we know.”

> When OCGM was being developed process was each force scored individually that was then collated into the region, Cumbria [rural force] had 7 of the top OCGs in the northwest (includes OCG hotspots such as Liverpool and Manchester) this because they were scoring differently, for example someone who is carrying a few ounces of cocaine through Cumbria would score quite highly, in Merseyside this would be negligible ranking, unless you’ve got the same group of people doing the scoring for all of the organised crime groups you’ll end up with unintended consequences. As a result, it was decided that forces shouldn’t score their own OCG, this worked ok for the regions, but you have the same problem when you try and aggregate it up nationally.

He went onto highlight the subjectivity of the decision making depending on the person assessing and the priorities of the force concerned **"**When I was chief an OCG involved in guns would always score higher than a drugs OCG even if they were involved at a higher level internationally because of the threat to life". The issue of scoring biases is inherent in any manual numerical system and should U BATTLE be adapted in this way it will be no different. The issue of different regions having different levels of organised criminality, and therefore different scoring levels, is also a challenge with any system that wants to operate at a national level and the insight above demonstrates the challenges associated with that.

Insider outsider research

This section details the challenges surrounding working in police and academia in parallel, which the author certainly identified with during the course of the research, this is best described by interviewee 17 as the "difficulty of wearing two different hats". The Interviewee noted "being known from analysis role has certain dynamics associated with it, it adds to the complexity. However, I found people were pretty good at differentiating that I was doing this research independently for a university rather than something that would be fed back internally. I got some really what I can only describe as brutally honest comments". Here this tallies almost exactly experiences from interviews pertaining to this research, particularly regarding the honesty of the comments when it comes to assessing the merits of systems such as MoRile and OCGM.

They also talk about the benefits, the two main ones being firstly: being inside the organisation acts as a significant enabler and gives you access to information you wouldn't get if you weren't in that role. The second benefit, they said, was that the implementation process was simplified with professional role.

> When you know the organisation you know how to put your point across, so it is received relatively well. The converse of that is that the Police didn't want to wait until thesis is written up to get findings they want them ASAP.

This second part of the above quote was certainly true in my experience and ensuring there was a realistic delivery timetable which allowed the police to access key findings in a timely manner and also ensure there was focus on the construction of the thesis itself was a challenge. The importance of the first element, regarding having the knowledge of the intricacies of the organisation and the best person to present your findings to, cannot be underestimated. Even in a police force as small as COLP there is an ability for a project to be bounced around various levels of middle management with no real impetus. That ability to target the key decision makers is enhanced by a knowledge of the organisation and also often by personal relationships with those key individuals.

How useful could U BATTLE and where it could sit in the investigative process?

Question 3 asked respondents how useful the U BATTLE toolkit was to them in their role and where they saw it sitting best in the investigative process., With hindsight, this two-part structure of the question may have been a mistake as it allowed respondents to pick which element of the question they answered, usually resulting on a focus of one section of the question, rather than both as intended.

The results of Question 2 were encouraging, with 14 out of the 16 respondents (88%) stating that the underlying concept of this research, that OCGs operate like businesses, was 'very accurate'. The remaining two respondents said it was 'neither accurate nor inaccurate'. No respondents stated the research concept was 'very inaccurate'.

Question 5 was the final multiple-choice question in the survey and, again, yielded positive results. Eleven recipients believe U BATTLE has the potential to have a small impact in improving the way investigative strategies are developed; a further five stated that it would have a significant impact. No recipient suggested that there would be 'no benefits' from the U BATTLE toolkit.

The questions that enabled numerical analysis were certainly useful in highlighting the general view of ROCUs on the research and its uses. They undoubtedly demonstrate an appetite from law enforcement to examine OCGs in this way. However, because of the uncertainty surrounding the sample size and engagement, it is challenging to gain concrete conclusions even when adding the numerous positive comments and lack of any negative feedback from the qualitative questions (16Q3).

> (16Q3) "My concerns would be that every mapped OCG operates differently, some are chaotic and actually disorganised, and others will be at the other end of the spectrum and are more likely to fit your concept". This feedback has been addressed by introducing an entry criteria for U BATTLE, which specifies the factors an OCG should be exhibiting in order for a U BATTLE analysis to be most effective. This can be viewed in the 'Enter U BATTLE' chapter.
>
> (3Q3) "It could be very useful if used consistently. There are some OCGs which seem chaotic in their makeup, and therefore it would be difficult to utilise the toolkit. These tend to be managed at local level (level 1), whereas those managed at force/region level, and within specialist teams such as RART/ECU, or Serious Organised Crime Units, do tend to have a more formal and professional make up, which is evident through the specialist skills they have/access."

Part of the entry criteria specifies the optimum criteria for applying U BATTLE. A key question is whether in an ideal world U BATTLE would be applied to every mapped OCG, regardless of sophistication, or if a more specific approach would be beneficial. The first approach would enhance consistency but the second would be easier to implement in terms of resources.

(1Q3) "It has the potential to be very useful, certainly from an OCG mapping perspective a lot of it appears to cover things that I consider when assessing an OCG. I can also see it being useful in identifying possible opportunities for disrupting an OCG."

(2Q3) Adds to this noting that it "could assist with considering operational tactics and well as identifying intelligence gaps". (6Q3) was similarly positive: "Very useful, especially in planning appropriate interventions". This feedback is very positive, the respondents appear to have gauged the aims of the research well.

Furthermore, (8Q3) "Potentially very useful if implemented correctly. We have a number of similar tools currently, OCG Mapping and MORILE, however these are not specifically aimed at a tactical response which appears to be the difference with this tool. The toolkit offers a different perspective and approach which may be useful in ops planning". This comment raises an important question surrounding the toolkit's interaction with existing products. The role within the redevelopment of the MoRILE framework is still to be fully determined and is not the subject of this paper, and there are elements of U BATTLE that do replicate the OCGM framework. But ultimately, the issue of whether the theory behind the research is implemented into policing practice, or is subsumed into the new MoRILE, is one that depends on a multitude of political and financial facts outside of the researcher's sphere of influence.

The comments below represent some of the insights gained from the survey regarding how U BATTLE could be positioned in the investigative process. This feedback was noted and adapted into future versions of the toolkit.

- (9Q3) “It would be useful particularly for the more complex OCGs. It could sit at various points - initially at the intelligence development stage to help identify what we know and where the gaps are, but also down the line of the investigation to assist with identifying other opportunities to target the OCG”.
- (10Q3) “Mapping process and OCG profile - intelligence development work”.
- (11Q3) “this product would be very helpful to us. We currently tackle OCGs through a lens devised by policing but the OCGs themselves operate as businesses, albeit illegal. We need to think differently about how we can disrupt their strengths and their operating models. I think this product could be used throughout the investigation process. I think it could be used at first referral of a job to the ROCU where they could assess what approach might be successful. I think this product could be used as a part of analysis. Analysts currently make recommendations to investigators, but I think this could complement this existing work really well and form another toolkit of recommendations to enhance them. I think this could also be used to complete evaluations on jobs post disruption to assess what next and as part of assessing impact, capability of an OCG and what to do once the business operating model is disrupted and is now a different operating model”.
- (12Q3) “I think this could be very useful particularly with officers new to the units who have never investigated Organised Crime Groups and are unaware of the techniques they use”.
- (13Q3) “I could potentially see some sort of concept in both the investigative and the strategic world. In terms of seeing where the business plan works would enable appropriate disruptions to be in place”.
- (15Q3) “I would suggest that products should be considered at the development, investigation and conclusion phase and reviewed regularly to ensure that tools are being used correctly”.
- (14Q3) “This product could be very useful in highlighting vulnerabilities in the OCG, and as an analysis tool to assess how an OCG may be operating”.

The methods and methodology of a thesis are of paramount importance if its conclusions are to be valid, as a result I make no apologies for the length of this chapter. Given my sensitive choice of subject and the varying strands that sit within I felt it was necessary to explore each facet of the methodology as well as related sub-topics in some depth on top of the sections examining my survey and interview methodology. Ultimately, I believe that while the nature of the combination of method strands has been unconventional, it was necessary and has been the correct choice in order to fully explore a subject that has so many different tenets. The survey allowed an insight into an area of policing that is often challenging for academics to access and gave respondents a chance to

express their thoughts without fear of a negative impact from supervisors. The interviews gave a chance to hear in depth assessments from experts in policing and academia, while the adapted use of business analysis methodology through the organised crime applicability index gave rigor to the process of developing a toolkit, the trial of which on a range of live and historical cases goes some way to proving on a practical level the theoretical accuracy of the core concept of this research.

Chapter 5 Reflection and conclusions

Conclusions

While not enamoured by the term itself, 'pracademic' is an area that, by dint of links with COLP and numerous other law enforcement agencies, and of course academic credentials with LJMU, the term neatly defines my own experiences. Ie someone who has spent extensive time in both policing and academic roles to have an understanding of how both industries work and the benefits and challenges involved and how a symbiotic relationship between the two areas can develop. In the context of this research, and in particular the process of developing an evidence base and methodology in conjunction with officers and analysts who are currently at the forefront of the fight against organised crime, this can only be of benefit to the overall academic rigour of the project.

It is recognised that the methodologies included are unorthodox. By extension, the process of creation and development of a practical piece of work to enhance OCG analysis was unconventional by traditional academic standards. Yet, despite the unorthodox nature, the overarching conclusion is that there has been an original and innovative contribution in both the scholarly and policing spheres. In the scholarly sphere, this can be seen in the development of the OCAI and the U BATTLE toolkit, which underpinned by a detailed multi methodological approach identifies the key questions to ask of police intelligence surrounding OCGs to inform investigative strategy development. This academic creation has also fed into the operational policing world This dual benefit can, and I think should, be argued to be the ultimate purpose of academia. The successful trial of the U BATTLE toolkit in multiple forces across the UK, and also internationally, alongside numerous presentations to high level bodies including Europol and the UNODC, has evidenced, through practical implementation, the proven scholarly accuracy of my core research concept, and also made an original contribution to policing practice.

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The aims at the beginning of this project were:

1. To critically evaluate the applicability of established business analysis techniques in the context of the investigation of organised crime through a multi-faceted methodology;

2. Critically assess how employment of those techniques may disrupt and pursue OCGs specifically through enhancing the development of investigative strategies;

3. Critically examine how those techniques that show promise can be developed into a workable toolkit for practitioners

4. Critically assess the thesis' contribution to organised crime literature both from a policing and critical criminological perspective

In both a policing and academic sense, the project has developed from a concept to a reality. The main change was the realisation that business analysis techniques could not be transposed wholly to OCGs. Instead, a more nuanced approach, requiring a matrix of the author's own invention and multiple trial and confirmation methodologies, was needed to ensure accurate conclusions. The methodology developed somewhat organically, while there was, of course, a coherent plan that was submitted to the ethics committee. This plan involved the historical trial, survey, and interview methodologies. Other elements of the methodology, such as the live pilot with trusted analysts providing specific feedback, were instigated when the opportunity arose. From a policing

perspective, looking back, the idea of a cohesive national implementation was perhaps naïve. However, given the results that have occurred on an individual basis, with the further trials, the correct resourcing, it would not be unrealistic to aim for universal adoption over the following five years.

One of the main pitfalls of a research project this size is mission drift. This is often seen as a wholly negative aspect, however throughout this research the addition of slight adaptions and innovations when presented with unforeseen problems (for example that BA techniques cannot be wholly transposed to organised criminality) it can breathe new life into a research project, as long as it follows the findings from the methodologies. The results suggest these minor ongoing adaptations should be embraced rather than frowned upon. In this case, with a project that has both policing and academic elements spanning the diverse subject of organised crime, and many associated entities, it was important to avoid any element of mission drift. While the results have mirrored my aims, the initial idea was for the practical development of this research to be a product administered as an independent analysis to provide a detailed overview of the business vulnerabilities of a specific OCG that was troubling a specific force or agency. However, the feedback received from the survey, the interviews, the live trials, and the live trials by specially selected analysts in a number of forces, indicated the utility of this research concept on a number of different levels. Put together, this feedback demonstrates that the tool is of more use if an analyst can apply it at a timing of their own choosing, during the investigation, using it as a tool that encourages them to think differently about ways of dismantling a particular OCG. As this was a change in the end use of this research rather than the research concept or methodologies itself, it had no negative impact on the thesis.

A key element in both policing analysis and academia is analysing your own decision-making process and composing counter arguments around any perceived weaknesses. In this case, the main criticisms it was perceived this research would attract are twofold. Firstly, that the methodological process was of the author's own invention, trialled mainly by himself and then improved it based on his own findings. To counteract these potential criticisms, the aforementioned survey, interview, and blind feedback methodologies were devised involving feedback from experts within the field. A second main criticism that it is antedated, will be around data quality, which can broadly be explained with the simple answer that it was the best that could be obtained in the circumstances available. This point is caveated by the fact that the sensitive nature of OCG intelligence meant that there were numerous security issues around data access to be navigated. In addition, it was found that once the data was accessed the amount police know of the really top level OCGs is often quite small as the successful groups tend to be the ones who operate under the radar, with police catching the 'low hanging fruit'. Therefore, it could be argued that the sophistication of organised crime in the UK is greater than shown in this thesis, which in itself is an argument for the increased use of business analysis techniques when investigating these entities. It is anticipated that a third issue could be the premise surrounding if and to what extent OCGs act like legitimate businesses. The evidence base gathered supports the conclusions, both in an existing scholarly context and that which I have gathered first hand from law enforcement. However, it is also true there are some opponents to this school of thought, namely constructionists like Hobbs, who believe that the notion of organised crime is a fallacy. Others argue that, in a definitional sense, the structure of high level OCGs are closer to networks than businesses.

Measuring the extent to which that is the case, the accuracy of such a claim and whether this conclusion can be applied to high level OCGs as a whole or only groups exhibiting certain trends or involved in certain commodities, is ultimately while something I believe has been proved throughout this research a fact that will only vindicated through further research. Furthermore, playing devil's

advocate, the veracity of the approach to categorise or classify the ways in which OCGs operate through the prism of legitimate business analysis techniques could be criticised because of the data limitations. It could be argued that to draw a conclusion and then extrapolate it to any organised crime group that displays certain parameters, based on a small number of drugs, counterfeiting, and fraud cases; some live trials conducted by the author; and some live pilots conducted by trusted analyst and fed back into the research process; could be construed as too much of a leap into the unknown. The counter argument to this is that, while you can always have more evidence. It is true that certain areas of organised criminality have not been covered by the research (cybercrime and weapons trafficking for example) which one could argue restricts the veracity of creating a methodology that applies to all OCGs. However, a key strand of the argument is that because of the strategic way these OCGs are acting, in replicating legitimate enterprises, the commodity itself is less important because the motivation remains the same (profit). Moreover, if this motivation is the same for all OCGs then therefore, the logical extension of this is that an approach based on this can be applied to all groups.

Looking back, as stated in my reflections section, there is certainly a case that the broadness of criminal activities in the cases have restricted the ability to make specific conclusions around the operation of high level OCGs involved in specific activities. However, the converse of the lack of specificity is that the research has the potential to have a greater impact at a national level. This is because the niche nature of organised crime within policing priorities as a whole means that should the research remit narrowed specifically to entities focussing on one criminal activity, the research, arguably, would not have gained the traction it has. This would have been purely because the number of cases that any practical product would have been applicable to, would have fallen significantly. As a result, there would be a smaller pool of potential officers and analysts to engage with; this, in turn, impacts the law enforcement's willingness to engage it because it isn't seen as an issue.

By attaching the research to the issue of organised crime as a whole, rather than say counterfeiting specifically, through my multi methodological approach, it has been possible to engage on a detailed level with a wider range of law enforcement covering different segments of criminality and develop a more effective tool. There is also an element of wanting to 'solve' or improve the whole range of organised crime in a single attempt through the thesis. Due to this, the idea of making a difference to the entirety of the organised crime investigation and analysis field has always been a priority when conducting this research. This intent is why, despite suggestions to the contrary, I did not narrow the scope of the research. Looking back, that was certainly a risk, but on balance, one that has since paid off.

In summary, the main conclusions of this thesis are that business analysis techniques as a whole are not transposable to organised criminality. This is because, while there are huge similarities in strategy, structure, and sophistication, the fact is that legitimate enterprises must abide by a strict set of rules and regulations surrounding their operation that simply do not apply in the case of organised criminals. However, as has been argued, the key questions contained within those business analysis techniques, with careful adaptation, can still be utilised. Through the creation of a dedicated matrix and a multi methodological approach, a series of questions can be formed which detail relevant similarities. When those questions are presented to police intelligence data on a particular OCG, they can serve multiple policing purposes.

This discovery that elements of business analysis techniques are applicable to OCGs strengthens the argument for the 'organised crime operates as a business' scholarly argument. This further opens up a whole new area surrounding the extent of the applicability within groups exhibiting different

criminal trends and involved in different activities. In an ideal world this would be solved by applying the product of this research to all the OCGs operating within England and Wales, sitting down with the analyst responsible for each OCG and interviewing them to determine accuracy and potential investigative uses. However, the scale of cases, level of access needed, and resources required mean that this would be challenging in the extreme. Secondly the literature is in agreement with the fact that business analysis techniques are effective in assessing the strengths and weaknesses of businesses. It therefore follows that if organised crime acts a like a business, the similarities of which have been proven throughout this thesis, then business analysis, which has been proved to be effective in the business arena, can also be utilised against organised crime groups. Thirdly, now that it has been agreed that, in general, business analysis is applicable to organised crime, we turn to specifics. Research was conducted to the test the key questions within a number of techniques and adapt them against a series of live and historical data sets as well as blind feedback from expert investigators and analysts, to ensure that they met the needs of policing. This included the formalising the development of an investigative strategy, which, as we have seen, has been a knowledge gap in policing for some time. Following a process of continuous development, made possible by the unique multi-faceted methodology, there is now a strong evidence base to suggest that, to bring the conclusions back to my research question, adapted version of standard business analytical techniques can be utilised in the investigation of organised crime groups by law enforcement agencies and furthermore that all four of my thesis aims have also been achieved.

The thrust of this research can be split into three broad areas:

Organised crime studies

Firstly, it contributes to organised crime through further verification of the enterprise theory of organised crime formulated by Smith (1970) IE that it operates as a business. From a scholarly perspective, the arguments set out in the literature review and reinforced throughout support this thesis in its premise regarding organised crime and how it operates as a business. Firstly, it has rigorously tested and proven the effectiveness of adapted versions of traditional business analysis techniques to enhance the investigation against OCGs. A result of this has been the substantial augmentation of the development of a policing tool based on this concept, which in turn has been rigorously reviewed by professionals. Expert books by journalists, such as Thompson (2008), Johnson (2012), and Grillo (2013) add much needed first-hand experience and can provide detail that simply wouldn't be possible to access, with the ethical restrictions of academia. Law enforcement, such as Europol (2013, 2015,2018, 2019), the National Crime Agency (2016,2017,2018,2019), the UNODC, and perhaps most importantly the DEA Kingpin strategy (1992), have provided a detailed assessment of criminal trends, changes in modus operandi and methodology in a clear and crisp manner and have played a part in aligning my hypothesis with the available intelligence. Furthermore, pioneering research from expert scholars from all corners of the world, including Ricaardi and Berlusconi (2016), Gurciullo (2014), Gottschalk (2009,2010), Desroches (2007), and Lusthaus (2018), as well as Sergi (2016A,2016B and 2020) Catino (2019) and of course Smith (1970,1975, 1980) has provided both insight and knowledge to this area. Statistically, these are experts from all walks of policing, academia and other associated disciplines. The vast majority of them have made claims and theorised based on either first-hand and second-hand experiences. As such, in their likenesses, they cannot be wrong.

This thesis brings the policing and academic cycle a full circle and shows the benefit to policing of engaging with academic literature to develop a practical policing tool and the benefit to academia of using policing data and expertise to ensure that model is effective. While it was designed to assist in sifting through police intelligence and to enhance the development of investigative strategies, rather

than for application of work by academics, by acting as a sorting box for information U BATTLE has the potential help in understanding a broad range of issues identified by leading scholars. For example, the U BATTLE questions act as a way for the analyst to determine how much is known about how a particular organised crime groups way of operating. If this was applied in a non-policing context by an academic such as Catino (2019), for example to his work understanding mafia structural and organisational dilemmas such as recruitment, trust and expansion, then this new methodical approach could potentially aid his research and help answer some of the unknown questions in the field through arranging the existing information in a way that enhances analysis. By default, as well as pulling together existing knowledge the U BATTLE questions act as an identifier of gaps in knowledge, which again is useful from an academic perspective as it highlights areas for further research, pulling to the forefront what is not known, which again has potential uses for scholars such as Catino.

Extending this concept further, if the U BATTLE toolkit were applied to multiple OCGs- for example a sub set of 100 groups involved in cocaine trafficking or 100 groups involved in a range of criminality- whether using policing or open source data- this could act on a broader level help to determine knowledge gaps in OCGs and create a broader data set of what is not known which would provide valuable information for academics who are attempting to answer the biggest questions around organised crime and the extent to which they operate similarly to businesses.

The development of an organised crime applicability index and its successful application on business analysis techniques is also significant, as it further bolsters the structural and organisational links between legitimate businesses and organised crime groups that have been set out throughout this thesis. From a contextual perspective is important to highlight the field prior to this thesis, some vital work has been done exploring, both in policing and academic spheres, the similarities between organised crime and legitimate businesses. Specifically, this thesis explored the nascent idea that we can use business analysis techniques to combat organised crime groups. The overriding conclusion from this thesis, that these techniques are able to be transposed from a business to a criminal intelligence context with some adaptation, is significant. Given that the academic literature is in support that criminals and business, while similar, are not identical, it is a logical finding and one that is supported by the academic literature surrounding organised crime entrepreneurship. This furthers the legitimacy of the conclusion that techniques designed for legitimate can be effective at deconstructing OCGs with adaptation.

The examination of organised crime groups using a business analysis lens breaks new ground and links to the literature discussed in more detail throughout this thesis, which cements the solidity of the organised crime as an enterprise school of thought. Specifically, elements of a number of business models drawn from academia, policing and business analysis were used in the initial versions of the U BATTLE toolkit before being tweaked through a number of methodologies including live and historical data and blind feedback. Full details of this process, including each model that was used can be viewed in Appendix 3: the development of U BATTLE at the end of this paper. These processes- in their original formats- were used as a starting point to determine the applicability of business analysis methods to organised crime groups. They were then were then applied to intelligence-based case studies of organised crime groups sourced from law enforcement. Any element that was ineffective- ie it related to an element of business not applicable to organised crime- or duplicated, for example there are elements of McKinsey 7S, CATWOE and POLDAT that are similar, was removed until only effective key questions from all of the different models were left.

The final version of U BATTLE includes elements from:

- **Value Chain Analysis-** Inbound outbound logistics, human resources, infastructure and operations from
- **Porters 5 Forces-** Bargaining power of buyers and suppliers-
- **Criminal Business Analysis Matrix**- Crime money management, business intelligence, legitimate business connections and business planning-
- **Europol OCG indicators**- Size of the group, Geographical dimension
- **Mckinsey's 7s**, Staff, Style, Skill, Strategy
- **7Cs of consulting**- Client, Clarify, Change, Create
- **CATWOE**- Transformation, World View
- **POLDAT**- Applications, Technology
- **Heptalysis** – Market opportunity, Potential return
- **Burke Litwin model-** Leadership, Motivation, working environment

Ultimately, there are several specific elements of the business analysis techniques adapted in this thesis that strengthen the organised crime operates as business argument ie that when pulled out from their original context and subject to a rigorous series of methods can offer an enhanced view of OCG operation through the prism of legitimate business.

The wider policing studies milieu

The examination of how police officers adapt to new research and the challenges of instigating such research, as well as issues surrounding the concept of insider and outsider research all contribute this area. A key challenge to enacting change in UK policing on a national scale has always been the way in which they are structured. This is because each force, while obviously adhering to policies set by the Home Office and the legislation passed by government, essentially acts independently from the others and chooses the depth and extent they wish to cooperate with other forces on any given topic. In addition to this, each chief constable has the power to structure their force how they wish which means that depending on location and management style, the investigation and analysis of organised criminality could sit in a number of different areas. All of this means that to introduce a new product or way of working nationally, 43 individual approaches have to be made. While there are bodies, such as the National Police Chiefs' Council (NPCC), whose working groups exist to foster cooperation and coordination, gaining momentum for a new project in times of austerity is, and will remain to be, a challenge.

The study of investigation and intelligence

Furthermore, the trials of adapted versions of business analysis techniques to various historical and live OCG investigations and the learning from interviews and surveys with those with extensive organised crime investigation and analytic experience have added to the currently very nascent understanding of how business analysis can be utilised in an intelligence and investigative context**.** The main strength of the evidence base that has been developed throughout this thesis is its multi-faceted nature. The mix of independent analysis, survey and interview analysis, historical and live case studies and finally blind feedback, adds a layer of authenticity when considering both the validity of the research and its place within the existing body of research. The fact that the evidence base presented in this thesis has been trialled in a law enforcement environment also furthers the veracity of the evidence base and enhances the ability of the thesis to both advance knowledge be taken seriously in both academic and policing circles.

While it is important to believe in your own research and its potential impact, it is also vital that you are rooted firmly in reality. As an idealist at heart this criticism of 'wanting to change the world' has been a familiar one to the author, in particular in the final drafts of this thesis. Perhaps in this thesis I have been guilty of presenting the most optimistic conclusions, IE that the concept that has been proved and could go on to revolutionise law enforcement OCG investigation capability, when in reality the successful completion of the research would be considered a success. On an even more micro level, proving the concept of this research itself is a success and ultimately how this thesis will be judged from an academic perspective. The data that has been collected clearly shows the utility of business analysis techniques from a law enforcement perspective, specifically that adapted versions of business techniques can both aid the development of investigative strategies and act as intelligence gaps identifier. The Literature review also clearly supports the research premise. While further research needs to be conducted to conclude with certainty the extent of this utility, the evidence from a wide range of methodologies points to the fact that the findings within this thesis can enhance law enforcement capabilities.

Ultimately, as has been made clear throughout this thesis, while the academic rigour and theoretical accuracy of this research concept are clearly of paramount importance, academic research as a whole and this research in particular, does not, should not, and in reality, cannot exist in a vacuum. As a result, the practical applications of this research, specifically its ability to enhance the understanding of the operation of OCGs, and the deep level of cooperation with COLP and numerous other law enforcement agencies to ensure this, are key to a relevant product being created with a theoretically accurate core.

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Appendix 1: Case study Reduce

Note: V4 of U BATTLE, but case study group 3 because U BATTLE V3 was used during interview analysis and improvements from that became V4

U BATTLE Toolkit v4

Taking similarities that can be transposed from legitimate enterprises to Organised Crime Groups to enhance understanding of the relevant business dynamics to develop an instinct for where law enforcement can really hurt an OCG.

Section 1 Understanding the OCG (UOCG)

OCG NAME/ID

OCG Reduce

Victims/brothels in: [redacted]

Geographical scope

OCG Ethnicity

Chinese

International dimension:

The OCG's geographic sphere of activity and influence, based on its country(-ies) of origin, country(-ies) of main activities and country(-ies) of supporting activities. The geographical dimension relates to the cross-border nature of the OCG's operations.

High: The OCG is present and active in more than 7 countries in or outside the EU.

Medium: The OCG is present and active in 3 to 7 countries in or outside the EU

Low: The OCG is present and active in two countries in or outside the EU..

Unknown

Low, off street prostitution in the UK and trafficking from China to the UK, route is unknown may include transit countries

The number of people under investigation

High: The OCG has more than 12 members.

Medium: The OCG has between 6 and 12 members.

Low: The OCG has less than 6 members.

Unknown

[redacted]x controllers, [redacted] principal subjects, more than [redacted] peripheral subjects

The structure and type of the OCG

.Hierarchical: the OCG is hierarchically structured, with internal systems of control and discipline.. .

Core group: the OCG is relatively tightly organised but unstructured, and surrounded by a network of individuals engaged in criminal activities

Loose network: the OCG is a loose and fluid network of individuals, often drawing on individuals with particular skills, who constitute themselves around an on-going series of criminal projects. Unknown

Types of criminality

Organised off-street prostitution involving Asian females, with clear links to human trafficking and associated money laundering. Women are trafficked from China into UK and intelligence suggests they frequently move around the UK to work in brothels. There are many implicated businesses including restaurants.

Origins of investigation

Op [redacted] is the development of Op [redacted], which was a [redacted] job, initially looking at a madam of a brothel. Upon completion of [redacted] investigation it became apparent that the identified tier above their subject [redacted] were posing a regional and national threat. As such this was passed to [redacted] for developing

Capability and Intent

Early indications show that the OCG are renting properties and hotel rooms, often giving a variety of different details to the landlords, these properties are normally located within town centres and are close to easy transport link. Sexual services are then being advertised on a variety of websites. It is believed that when arrangements are made by customers, they are told to go to a holding location and shortly before the appointment time further contact is made with them where upon they are given the full address. It would appear that the OCG own or are connected to a number of businesses, these include fast food outlets, restaurants, immigration consultancy firms, property management and estate agents. The sex work is advertised on '[redacted] and '[redacted] with the girls well versed in what they can and cannot say over the phone, clearly to avoid committing offences with potential UC officers.

'x-factor' - what makes this business/OCG different

Compartmentalised operation, Links to both legitimate businesses and organised crime, broad regional span and prostitutes aware of law

Investigative aims:

- What specifically, are you trying to achieve with the investigation; Will changes made have permanent benefit

Stop trafficking of vulnerable victims, target OCG controlling forces

.

1) OCG Business Model Vulnerabilities (BMV)

- How does OCG work,
- Who are the key nominals in the OCG and how do they control OCG activities

- technological factors that affect the operation of the

P-Group stays under the radar and does not appear to be involved in overt corruption

E- Public sector fraud, business tax fraud/evasion, Cash collection- indications of overseas coordination of cash collection

Structure

The group has some defined roles

-The group membership is stable/closed

-The group has no conflict within

-The group has survived previous LEA interventions

-The group has a recognised structure

Criminal business Skill: start low to high

- Counter Intelligence,
- awareness of police procedure,
- aware of Police and Criminal Evidence Act, Forensic Aware, Surveillance aware

- International connections,
- Legitimate business connection- (willing, coerced wilfully blind)
- Violence
- Corruption
- Research and development

- skills deficit what skills do they need that they don't have ie pilot or HGV license

The group has knowledge of basic law enforcement tactics and has attempted to develop countermeasures -The group has an understanding of law enforcement procedures and powers, and attempts to structure their criminal activity accordingly -The group has an understanding of law enforcement procedures and powers, and effectively structures their criminal activity to frustrate. Violence: Currently no intelligence, there has been little engagement with victims so this is currently unknown, although historic intelligence would suggest the above

3) Legitimate business skills

- Entrepreneurial vision;
- Inbound logistics- how where the commodity/product is coming in,
- Outbound logistics- how and where the commodity/product is coming out,
- Where are the key premises of the OCG located
- Procurement- where/how are products sourced,
- Transport networks-
- Innovation- future orientation- moving to new market. How do they evolve, adapt and innovate
- Has group adapted to internationalisation
- Ability to adapt to change
- Collaborating with other groups

Collaborating with other groups. The group has crossover membership of core members

-The group displays a clear link to domestic OCGs, with long-term established cooperation in their criminal activity

-The group operates in partnership (interdependent)

Entrepreneur

The group displays a capability to develop or maintain a dominant market share

-The group displays a capability to develop or maintain their dominant geographic scope

-The group displays indications that they are active in expanding their criminal operations

Community view of the OCG

Is there evidence of community tolerance of the OCG- why is this what are they providing that traditional authority doesn't

No evidence of community engagement or tolerance

5)Human Capital

Staffing- gaps to be exploited?; Human Resource management- how are employees recruited, treated etc, Do the senior OCG members exhibit management traits that can be exploited; are their gaps in the skillsets of the individuals that can be exploited: Working environment)- if OCG members are unhappy this can be exploited; How are staff/talent identified obtained recruited, motivated; 15How are employees identified then targeted then recruited then treated then developed then let go

Recruitment process is unclear for both victims and OCG members, the controller roles appear to be exchangeable, aside from cash internal motivation, more needs to be obtained around management style

6) Strategy

- OCGs business Disaster recovery strategy/contingency, if your shipment is intercepted how do you recover it
  Succession plan, who might succeed if key members
- What is the Rewards/promotional structure within the OCG

- how do I recruit you to my business, one of things is rapport, if demotivated you are vulnerable to be recruited

Resistance The group has a resistance to LEA intervention

-The group has a legitimate footprint

-The group is highly adaptable

-The group has survived successful LEA disruption and continues to operate as before

-The group is capable of surviving successful LEA interventions without significant impact

-The group of has a legitimate footprint that insulates the OCG (criminality continues following the arrests e.g. of controllers – new controllers take over)

-Evidentiary/intelligence links to all members are very difficult to establish

is unclear are whether hierarchical progression is possible

Total Business Operation Vulnerability Score

BMV1+BMV2+BMV3+BMV4+BMV5+BMV6

Financial vulnerabilities within the OCG

1) KP = KEY Legitimate PARTNER:

- Lawyers, Surveyors, Bankers, Landlords, Suppliers, Import/Export Agents, Money Changers, Fund Managers

See 2)

2) KR = KEY RESOURCES:

- Access to specialised expertise, commodity channels, money laundering channels,

Money laundering and financial information is pending further development - inference is that all are medium but current gap because financial not yet explored and resources are being utilised elsewhere

3) CR = CUSTOMER RELATIONS HOW THE BUSINESS IS RUN:

- How do they look after their customers?, How do they keep them?, How do they get new customers? How are they identified
- how do criminal choose the victims, what are they looking for

4) CASH RESOURCES WHERE THE MONEY COMES FROM:

- Sources of working capital; sources of loan finance; recycling of criminal funds; co-investment of criminal partners

The group has access to cash/funding that finances their existing criminal activities -The group has access to cash/funding that develops their own criminal activities

5) Crime Money Management

Moneyflow. An end to end understanding of financial drivers, notably in understanding the interfaces between say farmers producing illicit crops, chemists, transporters and ultimate traffickers and wholesale and retail providers of illegal services

See 2)

6) Criminal assets

- What is done with the profits. Lifestyle/ family vulnerabilities, describe the lifestyle of nominals

Not known

7. Key Financial details

- Useful if the financial intelligence is there to generate pricing strategy, market share and how long it takes to turn a profit
-

The group has access to cash/funding that finances their existing criminal activities -The group has access to cash/funding that develops their own criminal activities

Total financial vulnerability score

FV1+FV2+FV3+FV4+FV5+FV6+MV7

Market vulnerabilities

1)Cooperation/ How they interact with other OCGs

It appears that the OCG is self-sufficient in its own market and does not need to rely on competitors to purchase any of the successful operating elements, however it is unclear what role, if any, other OCGs play in laundering the mainly cashed based profits

2) Bargaining power of buyers- Who is the power player in each supply chain section

- Which elements do those who are purchasing the OCGs commodity control

The buyers of sex have a certain amount of power as they can choose whether or not to visit the brothel

3) Bargaining power of suppliers:

- Which elements of business does the supplier control

In this case the commodity is the girls, the brothel controllers have the power to set prices and conditions for the girls

4) Rivalry amongst existing competitors/ Threat of new entrants-

- Who else operates or wishes to operate in this particular landscape

The group displays a capability to develop or maintain a dominant market share

-The group displays a capability to develop or maintain their dominant geographic scope

-The group displays indications that they are active in expanding their criminal operations – New brothel set up before arrest of [redacted] new brothel this week

Market vulnerability score

MV1+MV2+MV3+MV4+MV5

U BATTLE score = BMVS+ FVS+ MVS

- BMVS= BMV1+BMV2+BMV3+BMV4+BMV5- Max 50
- FVS= FV1+FV2+FV3+FV4+FV5+FV6+fv7= Max 70
- MVS= MV1+MV2+MV3+MV4+MV5- max 50

Section 2 Law enforcement strategy

Level of current intelligence

Gaps: how much effort is needed to find out, how we do that what is the value of doing that what is the best source to obtain that (open source or covert

Significant gaps surrounding, OCG finances (profits and laundering), the trafficking process from China, OCG roles and relationships,

Specific elements of legislation that tie in with the questions you are asking, align IE Serious Crime Act.

Modern Slavery Act 2015, Sexual offences Act 2003

Tactical considerations: Overt and Covert tactical dashboard, Civil powers considered (HMRC or think outside the box and

Disruption opportunities and ways to damage the business: preventative reassurance investigative development, proactive

• Undercover officer to visit brothel and obtain 'service price list' which will allow detailed financial analysis • Recruit workers as informant during undercover visit • Disrupt advertising revenue through enquiries to website owners, (Police Intellectual Property Crime Unit) use similar methods • Surveillance on brothel controllers to identify money laundering network and transfer process • of girls between brothels • Visit to Chinese Embassy and then relevant Chinese law enforcement agencies, to determine source end of trafficking route • Liaise with HMRC Re freezing bank accounts

Multi agency response required:

Liaise with Gangmasters Licensing Authority, HMRC

Appendix 2: Europol OCG indicators

Note: Action denotes what action was taken and is not part of the indicators

Size of the group

The number of people under investigation.

High: The OCG has more than 12 members.

Medium: The OCG has between 6 and 12 members.

Low: The OCG has less than 6 members.

Unknown: not applicable.

Action: This was integrated into the U BATTLE toolkit following viewing the indicators

The structure and type of the OCG

Hierarchical: the OCG is hierarchically structured, with internal systems of control and discipline.

Core group: the OCG is relatively tightly organised but unstructured, and surrounded by a network of individuals engaged in criminal activities

Loose network: the OCG is a loose and fluid network of individuals, often drawing on individuals with particular skills, who constitute themselves around an on-going series of criminal projects.

Unknown: not applicable.

Action: This was integrated into the U BATTLE toolkit following viewing the indicators.

Human Resources

The type of functions or roles performed by OCG members and the way in which these functions interconnect.

Type of functions/roles include: Money mule, driver, provider of equipment, provider of documents, provider of data, money launderer, recruiter, guide, courier, leader, straw man, etc.

Action: This was already included in the toolkit

Modus Operandi

The main modi operandi and possible changes to it

Action: This was already included in the toolkit prior to viewing the indicators

Geographical dimension:

The OCG's geographic sphere of activity and influence, based on its country(-ies) of origin, country(-ies) of main activities and country(-ies) of supporting activities. The geographical dimension relates to the cross-border nature of the OCG's operations.

The international flow of money should be included only when there is an active involvement of people on an international level (the transfer of illegal gains to a foreign bank account does not indicate an international dimension, however, a courier travelling to that country on a regular basis to set up an illegal money scheme counts as international dimension).

High: The OCG is present and active in more than 7 countries in or outside the EU.

Medium: The OCG is present and active in 3 to 7 countries in or outside the EU.

Low: The OCG is present and active in two countries.

Unknown: not applicable

Action: This was integrated into the U BATTLE toolkit following viewing the indicators.

Financial resources

The capability of the OCG to obtain and use financial resources.

High: The OCG has abundant financial resources for its criminal activities or can easily find these resources.

Medium: The OCG has sufficient financial resources.

Low: The OCG has limited financial means or the OCG has a shortage of financial means.

Unknown: not applicable

Type and amount of financial resources.

Action: this was already included in the toolkit prior to viewing the indicators.

Other resources

The capability of an OCG to obtain and use other resources such as materials, information and communication tools.

High: The OCG has abundant resources for its criminal activities or can easily find these resources.

Medium: The OCG has sufficient resources.

Low: The OCG has limited resources or the OCG has a shortage of resources.

Type and amount of the resources.

Action: This was already included in the toolkit prior to viewing the indicators.

Level of Expertise

The degree to which the OCG is supported by people with specific skills and knowledge and/or uses specific tools and technologies to facilitate its criminal activities OCGs often have a need for specialists with particular skills or know-how. These specialists can be low-level or highly specialised experts. They can be used periodically or on a continuous basis. OCGs also use new technologies to facilitate their criminal activities. Some of these technologies are highly sophisticated (e.g. nanotechnology) The OCG itself can also specialise in a specific criminal service and have the delivery of this expertise to other OCGs as its core business (Crime-as-a-Service).

High: The OCG provides Crime-as-a-Service to other criminal actors AND/OR the OCG uses experienced/specialised experts, or sophisticated technical tools, on a continuous basis; it is a part of their strategy.

Medium: The OCG uses medium level experts or technical tools on a regular basis.

Low: The OCG uses experts with rather common knowledge or skills, or generally available technical tools on an ad hoc basis.

Action: This was already included in the toolkit prior to viewing the indicators.

Poly-crime activities

The extent to which the OCG is involved in multiple crime areas in order to maximise returns and minimise risks.

High: The OCG is strategically involved in diverse criminal markets that are not interlinked.

Medium: The OCG is involved in multiple criminal markets that are interlinked.

Low: The OCG has one main activity or commodity.

Action: This was integrated into the U BATTLE toolkit prior to viewing the indicators

Level of cooperation

The extent and type of collaborative links between OCGs, including the degree of equality or dependence the type of cooperation that is of interest here is intentional collaboration between groups with the aim of achieving a specific result.

High: The OCG is totally independent OR the OCG cooperates with other OCGs and is dominant in the relationship.

Medium: The OCG cooperates with other OCGs on the basis of equal partnership.

Low: The OCG depends on other OCGs.

Unknown: not applicable

Action: This was integrated into the U BATTLE toolkit prior to viewing the indicators

Adaptability and flexibility

The OCG's ability to adapt its criminal activities or working processes to changes in the environment, in order to exploit licit and illicit markets.

High: The OCG is an "innovator" and has proven to proactively discover new opportunities in licit and illicit markets. It quickly and creatively adapts to changes in the environment. It is flexible in its working processes and activities.

Medium: The OCG is a "follower/implementer of innovations" and is able to use new modus operandi, means or techniques or to copy other groups.

Low: The OCG is able to adapt to changes, but only reactively, when obliged to change.

Unknown: not applicable

Action: This was integrated into the U BATTLE toolkit prior to viewing the indicators

Turnover

The yearly turnover obtained by the OCG on the basis of illicit activities.

High: The OCG's turnover is higher than EUR 1,500.

Medium: The OCG's turnover is between EUR 3001 and EUR 1,500

Low: The OCG's turnover is lower than EUR 300.000

Action: This was integrated into the U BATTLE toolkit prior to viewing the indicators.

Money laundering

The OCG's ability to launder its criminal proceeds and the level of sophistication of its modi operandi ranging from high-end arrangements (e.g. off-shore constructions, intricate networks of shell companies and trusts) to more simple techniques (e.g. money remittance services, cash-intensive businesses, purchase of high value goods). Also specific modus operandi such as e-payments (e.g. bitcoins) and underground banking (e.g. Hawala banking).

High: The OCG frequently launders large amounts of criminal proceeds, by using sophisticated and innovative schemes OR the OCG's core business is to provide money laundering expertise to other OCGs.

Medium: The OCG processes medium to large amounts of criminal proceeds on a regular basis, using resources at its disposal and basic money laundering methods.

Low: The OCG occasionally launders its proceeds, in small amounts and using basic money laundering methods

Unknown: not applicable

Action: This was integrated into the U BATTLE toolkit prior to viewing the indicators.

Use of legal business structures

The OCG's ability to operate within or make use of legitimate private businesses.

High: The OCG sets up its own LBS or infiltrates existing LBS at a high-level OR is able to collude with or coerce high level managers.

Medium: The OCG infiltrates the legal business structure at a low-level OR is able to collude with or coerce employees.

Low: The OCG uses legal business structures while the LBS are not aware of it. The OCG does not have any control over the LBS.

Unknown: not applicable

Action: This was integrated into the U BATTLE toolkit prior to viewing the indicators.

Countermeasures

The level of sophistication of active or passive measures or actions (excluding violence) taken by the OCG to counter law enforcement detection, investigation or prosecution.

High: The OCG has a good understanding of law enforcement techniques and strategically uses innovative countermeasures.

Medium: The OCG occasionally uses innovative countermeasures.

Low: The OCG uses simple and traditional countermeasures.

Unknown: not applicable.

Action: This was integrated into the U BATTLE toolkit prior to viewing the indicators.

Corruption and influence in the public sector

The OCG's level of abuse of the power that is entrusted to the public sector, by practicing illicit influence, exploiting weaknesses, bribing and/or blackmailing, in order to further their criminal opportunities.

High: The OCG frequently and proactively uses corruption against strategic public servants/sectors as an intrinsic part of their business strategy.

Medium: The OCG uses corruption on a case by case basis, regularly and reactively.

Low: Corruption is not a crucial feature of their business, but they use it occasionally and reactively OR no attempts to corrupt have been made.

Action: This was integrated into the U BATTLE toolkit prior to viewing the indicators

Appendix 3 – Development of U BATTLE

U BATTLE V1: This version was developed from the OCAI and trialled on a series of historical cases.

Section 1: Business operation vulnerabilities:

5Cs of organised crime investigation- based on 7Cs of consulting

- **Client –** Understanding the actions that are required for successful operation of an OCGS.
- **Clarify** - What specifically, are you trying to achieve with the investigation?
- **Change -** What needs to occur in order to ensure success?
- **Create** - Plan how this will be achieved.
- **Continue** - Will changes made permanent benefit?

McKinsey 7s

How is the OCG **structured** (based on intel and open source):

- **Strategy** - What is the OCGs business plan?
- **System** - What details are available on financial and accounting practices?
- **Shared Value -** Does the OCG have political or paramilitary links that can be exploited?
- **Staff -** Who are the key nominals in the OCG and what are their roles?
- **Style -** Do the senior OCG members exhibit management traits that can be exploited?
- **Skill -** What are the skillsets of the individuals are there gaps that can be exploited?

Porters Five Forces

- **Bargaining power of buyers**- Which elements do those who are purchasing the OCGs commodity control have?
- **Threat of substitute products** - Can the OCGs power be disrupted in this way?
- **Bargaining power of suppliers** - Which elements of business does the supplier control?
- **Rivalry amongst existing competitors/ Threat of new entrants -** Who else operates or wishes to operate in this particular landscape?

CATWE (based on CATWOE)

- **Customers** - How do the customers interact with the OCG?

- **Actors** - Who is involved in the OCG?
- **Transformation -** What is the key innovation behind the business?
- **World View** - How do the activities of the OCG fit in with global trends?
- **Environmental** – How will the operating environment impact investigation plans?

POLAT (based on POLDAT)

- **Process -** How does the OCG operates?
- **Organization** - How are tasks divided/organisation is set up, including staff roles details?
- **Location** - What are physical or business infrastructures of the OCG?
- **Applications** - What plans does the OCG have to expand/develop can they be exploited?
- **Technology** - How does OCG use technology to aid criminality?

Heptalyis

- **Market Opportunity** - Identify how OCG could exploit its market and, from that, how it can be stopped.
- **Product or Solution** - what does successful operation rely on?
- **Financial engine** - Financial expenses of an OCG.
- **Human capital** - Staffing- gaps to be exploited?
- **Potential return** - Useful if the financial intelligence is there to generate pricing strategy, market share and how long it takes to turn a profit.
- **Margin of safety** - Risks of operation for the OCG- i.e., competitors/ law enforcement.

Section 2: Financial vulnerabilities

Jackal Matrix

KP = KEY PARTNERS	KA = KEY ACTIVITIES	VA = VULNERABILITIES & ACTIONS	CR = CUSTOMER RELATIONS	CS = CUSTOMER SEGMENTS
Accountants	Business Activity	Dynamic assessment of SOCG in terms of organisation, network	How do they look after their customers?	Customer markets serviced:

<table>
<tr>
<td rowspan="2">Lawyers

Surveyors

Logistics

Bankers

Landlords

Suppliers

Import/Export Agents

Money Changers

Fund Managers</td>
<td>Criminal

Legitimate

Criminal service to legitimate customer

Criminal service to criminal customer

Legitimate service to criminal customer</td>
<td rowspan="2">or process

• Distinctive capabilities exploited by SOCG

• Assessment of Vulnerabilities

• Actions based on options and opportunities suggested by <u>Vulnerabilities</u></td>
<td>How do they keep them?

How do they get new customers?</td>
<td rowspan="2">Legitimate

Criminal

Public Sector

Private Individuals

Foreign Criminal

Partners</td>
</tr>
<tr>
<td>KR = KEY RESOURCES

Access to specialised expertise

commodity channels

money laundering channels</td>
<td>CH = CUSTOMER CHANNELS

Routes to market

How do they reach customer?

Advertising and distribution channels</td>
</tr>
<tr>
<td colspan="3">C$ = CASH RESOURCES – Sources of working capital; sources of loan finance; recycling of criminal funds; co-investment of criminal partners</td>
<td colspan="2">RS = REVENUE SPEND – Dividends; wages; cash exports; cash placements into the banking system; asset purchase; investment funds</td>
</tr>
</table>

<u>Criminal Business Analysis Matrix (CBAM)</u>

How does the OCG exhibit any of the following factors:

- Counterintelligence
- Legitimate business connection
- Violence
- Business intelligence
- Human Resources
- Operational logistics
- Financial capital
- Crime Money Management
- Business planning
- Entrepreneurial vision
- International connections

Value chain analysis

This technique splits business activities into primary and support activities.

Support:

- **Infrastructure -** what does the OCG need to operate
- **Human Resource management** - how are employees recruited, treated etc
- **Technology development** - how is technology used in the business
- **Procurement** - where/how are products sourced

Primary activities:

- **Inbound logistics** - how where the commodity is coming in
- **Operations** - what criminal activities involved in
- **Outbound logistics** - how and where the commodity is coming out
- **Marketing and sales** - how are products priced/promoted/communicated
- **Service** - How does the OCG treat its customers

Section 3 Environmental Vulnerabilities

SWOT Analysis

- Operational **Strengths** of the OCG

- Operational **Weaknesses** of the OCG
- Investigative **Opportunities**
- **Threats** to the Investigation

PESTLE

- **Political** factors that affect the operation of the OCG
- **Economic** factors that affect the operation of the OCG
- **Social** factors that affect the operation of the OCG
- **Technological** factors that affect the operation of the OCG
- **Environmental** factors that affect the operation of the OCG
- **Legal** factors that affect the operation of the OCG

Burke Litwin Model

- **Mission and Strategy -** what are the business aims of the OCG
- **Leadership -** how do OCG kingpins drive the OCG business
- **Structure -** how is the OCG set up
- **Management practices** - how is the OCG run
- **Work Unit Climate (working environment)** - if OCG members are unhappy this can be exploited
- **Motivation -** How are individuals in the OCG motivated
- **Individual needs and values -** similar to work unit climate, is OCG employee happy

Investigative Insight summaries (IIS)

- IIS 1
- IIS 2
- IIS 3

V1 to V2

The changes that took places between V1 and V2, which were then trialled on four historical cases, included the introduction of formal section structure grouping the techniques into three specific sections, based on the way they could be used to impact an OCG, business operation vulnerabilities, financial vulnerabilities, and market vulnerabilities.

POLAT, CTWOE ,and Heptalysis were further reduced following further case studies as was McKinsey's 7s, CBAM, and value chain analysis.

The rationale behind this reduction was efficiency, if when a specific question within a technique was trialled on a historical or live case and it either didn't make sense or did not elicit an answer that would have added to the knowledge of an officer or analysts, it was removed.

U BATTLE Toolkit v2

This version was trialled on a further 4 historical cases

Section 1: Business operation vulnerabilities

5Cs of organised crime investigation- based on 7Cs of consulting

- **Client –** Understanding the actions that are required for successful operation of an OCGS
- **Clarify –** What specifically, are you trying to achieve with the investigation?
- **Change –** What needs to occur in order to ensure success?
- **Create –** Plan a suggestion on how this will be achieved
- **Continue –** Will changes make permanent benefit?

6S of organised crime structure- based on McKinsey 7s

- How is the OCG **structured** (based on intel and open source)?
- **Strategy –** What is the OCGs business plan?
- **Shared Value –** Does the OCG have political or paramilitary links that can be exploited?
- **Staff –** Who are the key nominals in the OCG and what are their roles?
- **Style –** Do the senior OCG members exhibit management traits that can be exploited?
- **Skill –** What are the skillsets of the individuals are there gaps that can be exploited?

Porters Five Forces

- **Bargaining power of buyers -** Which elements do those who are purchasing the OCGs commodity control?
- **Threat of substitute products –** Can the OCGs power be disrupted in this way?
- **Bargaining power of suppliers –** Which elements of business does the supplier control?
- **Rivalry amongst existing competitors/ Threat of new entrants –** Who else operates or wishes to operate in this particular landscape?

CTWE (based on CATWOE)

- **Customers –** How do the customers interact with the OCG?
- **Transformation –** What is the key innovation behind the business?
- **World View –** How the activities of the OCG fit in with global trends?
- **Environmental –** How the operating environment will impact investigation plans?

OLAT (based on POLDAT)

- **Organization –** How tasks are divided/organisation is set up, including staff roles details?
- **Location –** What are physical or business infrastructures of the OCG?
- **Applications –** What plans does the OCG have to expand/develop can they be exploited?
- **Technology –** How does OCG use technology to aid criminality?

Quadralysis – based on Heptalyis

- **Market Opportunity –** Identify how OCG could exploit its market and from that how it can be stopped.
- **Human capital –** Staffing: gaps to be exploited?
- **Potential return –** Useful if the financial intelligence is there to generate pricing strategy, market share and how long it takes to turn a profit.
- **Margin of safety –** Risks of operation for the OCG- i.e., competitors/ law enforcement.

Section 2: Financial vulnerabilities

Jackal Matrix

- **KP = KEY PARTNERs –** Lawyers, Surveyors, Bankers, Landlords, Suppliers, Import/Export Agents, Money Changers, Fund Managers.
- **KR = KEY RESOURCES –** Access to specialised expertise, commodity channels, money laundering channels.
- **CR -CUSTOMER RELATIONS –** How do they look after their customers? How do they keep them? How do they get new customers?
- **CUSTOMER CHANNELS –** Routes to market, how do they reach customer? Advertising and distribution channels, Customer markets serviced**.**

- **CUSTOMER SEGMENTS –** Legitimate, Criminal, Public Sector, Private Individuals, Foreign Criminal.

- **CASH RESOURCES –** Sources of working capital; sources of loan finance; recycling of criminal funds; co-investment of criminal partners**.**

- **REVENUE SPEND –** Dividends; wages; cash exports; cash placements into the banking system; asset purchase; investment funds.

- **Service type –** Business Activity, Criminal, Legitimate, Criminal service to legitimate customer, Criminal service to criminal customer, Legitimate service to criminal customer.

Criminal Business Analysis Matrix (CBAM)

How does the OCG exhibit any of the following factors:

- Counterintelligence
- Legitimate business connection
- Violence
- Business intelligence
- Operational logistics
- Crime Money Management
- Business planning
- Entrepreneurial vision
- International connections

Value chain analysis

This technique splits business activities into primary and support activities.

Support:

- **Infrastructure -** what does the OCG need to operate?
- **Human Resource management** - how are employees recruited, treated, etc?
- **Procurement** - where/how are products sourced?

Primary

- **Inbound logistics** - how where the commodity/product is coming in?
- **Operations** - what criminal activities involved in?
- **Outbound logistics** - how and where the commodity/product is coming out?

Section 3: Environmental Vulnerabilities

SWOT Analysis.

- Operational **Strengths** of the OCG
- Operational **Weaknesses** of the OCG
- Investigative **Opportunities**
- **Threats** to the Investigation

PESTLE

- **Political** factors that affect the operation of the OCG
- **Economic** factors that affect the operation of the OCG
- **Social** factors that affect the operation of the OCG
- **Technological** factors that affect the operation of the OCG
- **Environmental** factors that affect the operation of the OCG
- **Legal** factors that affect the operation of the OCG

Burke Litwin Model

- **Mission -** what are the business aims of the OCG?
- **Leadership -** how do OCG kingpins drive the OCG business?
- **Work Unit Climate (working environment)** - if OCG members are unhappy this can be exploited.
- **Motivation -** how are individuals in the OCG motivated?
- **Individual needs and values -** similar to work unit climate, is OCG employee happy?

Investigative Insight summaries (IIS)

- IIS 1
- IIS 2
- IIS 3

U BATTLE V2 - V3:

The mainstay of the changes to the 'nuts and bolts' of the questions gleaned from trial on the survey and interview methodologies. For example, which techniques were suitable, and within that, which key questions within those techniques had a role in enhancing the intelligence picture. These were in place by the time version two was being adapted into version three.

Further duplication analysis was conducted following case trials. The names of the initial techniques were removed for streamlining purposes with the adapted key questions remaining. Yellow highlighting was added for clarity.

U BATTLE Toolkit v3

This version was trialled using the survey and interview methodologies and after duplication analysis.

Business operation vulnerabilities

Clarify:

- What specifically, are you trying to achieve with the investigation; Will changes made have permanent benefit

Strategy: What is the OCGs business plan, who are the key nominals in the OCG and what are their roles, how do kingpins drive the OCG business, where are business infrastructures of the OCG located Procurement- where/how are products sourced, Infrastructure- what does the OCG need to operate

Criminal business skills:

- Counterintelligence, awareness of police procedure, international connections, legitimate business connection, violence

Legitimate business skills:

- Entrepreneurial vision; Inbound logistics - how where the commodity/product is coming in.

- **Outbound** logistics - how and where the commodity/product is coming out.

Human Capital

- Staffing - gaps to be exploited?;Human Resource management - how are employees recruited, treated etc, Do the senior OCG members exhibit management traits that can be exploited; are their gaps in the skillsets of the individuals that can be exploited: Work Unit Climate (working environment). If OCG members are unhappy this can be exploited.

Strengths and weaknesses:

- Operational Strengths; Operational Weaknesses; Threats to the Investigation; Political, Economic, Social, Legal factors that affect the operation of the OCG, Technology - how does OCG use technology to aid criminality.

Financial vulnerabilities

KP = KEY Legitimate PARTNER:

- Lawyers, Surveyors, Bankers, Landlords, Suppliers, Import/Export Agents, Money Changers, Fund Managers.

KR = KEY RESOURCES:

- Access to specialised expertise, commodity channels, money laundering channels.

CR = CUSTOMER RELATIONS:

- How do they look after their customers? How do they keep them? How do they get new customers?

CASH RESOURCES:

- Sources of working capital; sources of loan finance; recycling of criminal funds; co-investment of criminal partners.

Crime Money Management:

- What is done with the profits?

<u>Market vulnerabilities</u>

Potential return:

- Useful if the financial intelligence is there to generate pricing strategy, market share and how long it takes to turn a profit.

Bargaining power of buyers:

- Which elements do those who are purchasing the OCGs commodity control?

Bargaining power of suppliers:

- Which elements of business does the supplier control?

Rivalry amongst existing competitors/ Threat of new entrants:

- Who else operates or wishes to operate in this particular landscape?

Customers

- How do the customers interact with the OCG?

Investigative **Opportunities** Investigative Insight summaries (IIS):

- IIS 1
- IIS 2
- IIS 3

V3 to v4 - a number of live cases

A brief summarising statement and black text boxes for answers were included. The other key innovation was the introduction of the Europol Indicators, which were sent to me following a

meeting with Europol's head of Strategic Analysis at the 2019 Police Strategy Forum and the use of capability and intent and x factor criteria which was suggested during the interview process.

U BATTLE Toolkit v4

This version was trialled on a number of live cases.

Taking similarities that can be transposed from legitimate enterprises to Organised Crime Groups to enhance understanding of the relevant business dynamics to develop an instinct for where law enforcement can really hurt an OCG.

Section 1 Understanding the OCG (UOCG)

OCG NAME/ID

Geographical scope

International dimension:

The OCG's geographic sphere of activity and influence, based on its country(-ies) of origin, country(-ies) of main activities and country(-ies) of supporting activities. The geographical dimension relates to the cross-border nature of the OCG's operations.

High: The OCG is present and active in more than 7 countries in or outside the EU.

Medium: The OCG is present and active in 3 to 7 countries in or outside the EU

Low: The OCG is present and active in two countries

Unknown

The number of people under investigation

High: The OCG has more than 12 members.

Medium: The OCG has between 6 and 12 members.

Low: The OCG has less than 6 members.

Unknown

The structure and type of the OCG

4a. Structure:

Hierarchical: the OCG is hierarchically structured, with internal systems of control and discipline

Core group: the OCG is relatively tightly organised but unstructured, and surrounded by a network of individuals engaged in criminal activities

Loose network: the OCG is a loose and fluid network of individuals, often drawing on individuals with particular skills, who constitute themselves around an on-going series of criminal projects.

Unknown

Types of criminality

Origins of investigation

Capability and Intent

'x-factor' - what makes this business/OCG different

Investigative aims:

- What specifically, are you trying to achieve with the investigation; Will changes made have permanent benefit

.

1) OCG Business Model Vulnerabilities (BMV)

- How does OCG work,
- Who are the key nominals in the OCG and how do they control OCG activities
- Political, Economic, Social, Legal, technological factors that affect the operation of the OCG, Technology- how does OCG use technology to aid criminality

2) Criminal business Skill: start low to high

- Counter Intelligence,
- Awareness of police procedure,
- Aware of Police and Criminal Evidence Act, Forensic Aware, Surveillance aware

- International connections,
- Legitimate business connection- (willing, coerced wilfully blind)
- Violence
- Corruption
- Research and development
- skills deficit what skills do they need that they don't have i.e. pilot or HGV license

3) Legitimate business skills

- Entrepreneurial vision;
- Inbound logistics- how where the commodity/product is coming in,
- Outbound logistics- how and where the commodity/product is coming out,
- Where are the key premises of the OCG located
- Procurement- where/how are products sourced,
- Transport networks-
- Innovation- future orientation- moving to new market. How do they evolve, adapt and innovate
- Has group adapted to internationalisation
- Ability to adapt to change
- Collaborating with other groups

4) Community view of the OCG

Is there evidence of community tolerance of the OCG- why is this what are they providing that traditional authority doesn't

5)Human Capital

Staffing- gaps to be exploited?; Human Resource management- how are employees recruited, treated etc, Do the senior OCG members exhibit management traits that can be exploited; are their gaps in the skillsets of the individuals that can be exploited: Working environment)- if OCG members are unhappy this can be exploited; How are staff/talent identified obtained recruited, motivated;

How are employees identified then targeted then recruited then treated then developed then let go.

6) Strategy

- OCGs business Disaster recovery strategy/contingency, if your shipment is intercepted how do you recover it? Succession plan, who might succeed if key members?
- What is the Rewards/promotional structure within the OCG?
- How do I recruit you to my business, one of things is rapport, if demotivated you are vulnerable to be recruited?

Total Business Operation Vulnerability Score

BMV1+BMV2+BMV3+BMV4+BMV5+BMV6 (Note: this and other numerical scoring mechanisms was removed as it added complexity

Financial vulnerabilities within the OCG

1) KP = KEY Legitimate PARTNER:

- Lawyers, Surveyors, Bankers, Landlords, Suppliers, Import/Export Agents, Money Changers, Fund Managers

2) KR = KEY RESOURCES:

- Access to specialised expertise, commodity channels, money laundering channels,

3) CR = CUSTOMER RELATIONS HOW THE BUSINESS IS RUN:

- How do they look after their customers?, How do they keep them?, How do they get new customers? How are they identified
- How do criminal choose the victims, what are they looking for

4) CASH RESOURCES WHERE THE MONEY COMES FROM:

- Sources of working capital; sources of loan finance; recycling of criminal funds; co-investment of criminal partners

5) Crime Money Management

Money flow. An end to end understanding of financial drivers, notably in understanding the interfaces between say farmers producing illicit crops, chemists, transporters and ultimate traffickers and wholesale and retail providers of illegal services

6) Criminal assets

- What is done with the profits. Lifestyle/ family vulnerabilities, describe the lifestyle of nominals

7. Key Financial details

- Useful if the financial intelligence is there to generate pricing strategy, market share and how long it takes to turn a profit
-

Total financial vulnerability score

FV1+FV2+FV3+FV4+FV5+FV6+MV7

Market vulnerabilities

1)Cooperation/ How they interact with other OCGs

2) Bargaining power of buyers- Who is the power player in each supply chain section

- Which elements do those who are purchasing the OCGs commodity control

3) Bargaining power of suppliers:

- Which elements of business does the supplier control

4) Rivalry amongst existing competitors/ Threat of new entrants-

- Who else operates or wishes to operate in this particular landscape

5) Customers

- How do the customers interact with the OCG

Market vulnerability score

MV1+MV2+MV3+MV4+MV5

U BATTLE score = BMVS+ FVS+ MVS

- BMVS= BMV1+BMV2+BMV3+BMV4+BMV5- Max 50
- FVS= FV1+FV2+FV3+FV4+FV5+FV6+fv7= Max 70
- MVS= MV1+MV2+MV3+MV4+MV5- max 50

Section 2 Law enforcement strategy

Level of current intelligence

Gaps: how much effort is needed to find out, how we do that what is the value of doing that what is the best source to obtain that (open source or covert)

Specific elements of legislation that tie in with the questions you are asking, align IE Serious Crime Act.

Tactical considerations: Overt and Covert tactical dashboard, Civil powers considered (HMRC or think outside the box

Disruption opportunities and ways to damage the business: preventative reassurance investigative development, proactive

Multi agency response required:

V4 to v5 (Final version)

The previous 3 section format was removed following blind feedback, it was replaced by a two section layout comprising Understanding the OCG and law enforcement strategy.

The main change was the eradication of the numerical scoring and weighting system, which blind feedback dictated did not add any additional insight and complicated the application of the tool. While the rationale of the weighting system was filled with good intentions- i.e. the idea was to create a similar system to that employed by OCGM and MoRILE which could then be feed into the well-established police system of scoring OCGs numerically. Ultimately it was deemed- through the multi methodology feedback that the toolkit was more use as a purely qualitative tool capable of enhancing the intelligence picture, rather than as a quantitative method.