
Research Article

Trusting the Untrustworthy: How Trust is Established and Maintained in Illicit Markets

Alison Greene^{1*}

Received: 3 November 2023 / Accepted: 2 August 2024
© The Author(s), 2024

Abstract

Illicit markets are characterised by risk and uncertainty. Inherent information asymmetry and the ubiquitous threat of law enforcement and adversaries like scammers create an environment where cooperation and exchange would seem unlikely. To profit in illicit markets, however, cooperation is necessary. Given the potential high payoffs, illicit actors find means to overcome the barriers to collaboration. This article explores how criminal actors cooperate in what would be assumed to be an uncooperative environment. Without the usual legal mechanisms, they establish trust to mitigate such risks. This is done through leveraging social capital, emitting signals that are cheap to emit but costly to fake and using the threat of violent sanctions. In online markets, like Silk Road, where anonymity generates further problems for cooperation, actors also use built-in reputation systems and chat forums to mitigate risk.

Keywords illicit markets • cooperation • social capital • trust mechanisms • reputation systems

Introduction

¹ Alison is a fourth-year undergraduate student of Economics and Sociology at the University of Edinburgh. Primarily, she is interested in economic sociology, with a focus on markets that are not readily understood by the academic apparatus of neoclassical economics, such as the market for start-up investment and illicit markets.

Trust is a crucial component of social life and the basis of social cooperation.² Undoubtedly trust is important to all social groups and markets, but it is even more so in illegal or non-normative groups.³ Social cooperation requires actors to establish trust, but illicit markets are riddled with risks and uncertainty, which makes for a low-trust environment. The constant threat of law enforcement, the danger of scamming, and the absence of legal support, make risk omnipresent in illicit markets. This volatile backdrop, paired with suggestions that those engaged in criminal activities are less honest and dependable, would indicate that criminal collaboration would break down.⁴ Co-offending and illicit markets are, however, prolific, showing that this does not happen. This is likely because the potential payoffs of collaboration are so profitable. How criminal actors establish and maintain trust is, therefore, an important matter to study to understand how such groups and markets function. This paper will first establish what is meant by trust and examine why it is particularly important in illicit markets. This is important to examine initially in order to explore why trust building is so important to criminal actors and how they do so. Then, it will consider some of the unique challenges to building and retaining trust in illicit markets, before exploring some of the solutions criminal actors find to this trust problem. These include the selective employment of violence, utilising social capital, and using trust signalling. Next, it will turn to online illicit marketplaces, which pose further challenges to the establishment of trust for criminals. It finds that platforms and users have overcome these issues by integrating trust-building into marketplace mechanisms. Overall, it becomes clear that trust is essential to operations in illicit markets.

Conceptualising Trust

² Bakken, Silje A. "Drug Dealers Gone Digital: Using Signalling Theory to Analyze Criminal Online Personas and Trust." *Global Crime* 22, no. 1 (2021): 51-73.

³ Densley, James A. "Street Gang Recruitment: Signalling, Screening, and Selection." *Social Problems* 59, no. 3 (2012): 301-321.

⁴ Von Lampe, Klaus, and Petter Ole Johansen. "Organized Crime and Trust: On the Conceptualization and Empirical Relevance of Trust in the Context of Criminal Networks." *Global Crime* 6, no. 2 (2004): 159-184.

Trust is an essential component of social life as it is a prerequisite to all social relations.⁵ Social life comes with uncertainties about the intentions of others, which creates risk for individuals. Thus, social cooperation and relationship building inherently involve risk, and trust is how people manage the uncertainty that comes with incomplete knowledge.⁶ Uncertainties can hinder collaboration, so in this sense, trust is the transactional cost of collaboration.⁷ Trust presupposes a future outcome that results in harm, while it also indicates that avoiding such risk of harm would mean missing out on potential opportunities.⁸ It is through trust that cooperation between actors may occur despite a lack of history of cooperation.

Trust is a “multifaceted phenomenon” that is difficult to define and highly context specific, whether in licit or illicit markets.⁹ There are different types of trust and different factors influence those within the trust relationship, such as cultural influences, rationality, and emotions.¹⁰ The dynamics of trust may differ between settings, for example, how trust is enacted in families may be different to in a business setting – the former is based on familiarity and obligation, while the latter relates more to reputation and shared norms (with the help of legal and normative frameworks).¹¹ Familial and kinship bonds reduce the uncertainty surrounding cooperation, encouraging trust, as individuals have accumulated track records and reputations that help facilitate this trust. Shared ethnicity or local community can also be a strong facilitator of trust, which is based on familiarity, conformity, and shared values.

Market Trust

In markets, uncertainty and asymmetric information can be a barrier to cooperation. Trust issues primarily arise from information asymmetry, where future actions or product

⁵ Bakken, "Drug Dealers Gone Digital"

Yip, Michael, Caroline Webber, and Nigel Shadbolt. "Trust Among Cybercriminals? Carding Forums, Uncertainty and Implications for Policing." *Policing and Society* 23, no. 4 (2013): 516-539.

⁶ Von Lampe and Johansen, "Organized Crime and Trust"

⁷ Yip et al., "Trust Among Cybercriminals?"

⁸ Munksgaard, Rasmus. "Building a Case for Trust: Reputation, Institutional Regulation and Social Ties in Online Drug Markets." *Global Crime* (2022): 1-24.

⁹ Von Lampe and Johansen, "Organized Crime and Trust"

¹⁰ Bakken, "Drug Dealers Gone Digital"

¹¹ Von Lampe and Johansen, "Organized Crime and Trust"

quality are not easily observable.¹² When one party in a transaction possesses more transaction-related information than the other, this constitutes 'information asymmetry/dissymmetry'.¹³ Typically, this is the case when sellers are more informed about the quality of their product relative to buyers. It can, though, also occur with information imbalances between employers and new recruits, for example. Akerlof describes this risk derived from asymmetric information in his paper about the 'market for lemons'. He theorised that in a market with asymmetrically distributed information, this drives prices down so that high-quality sellers leave the market and only poor-quality goods are available. Trade, consequently, breaks down entirely. Similarly, when individuals cannot accurately judge the trustworthiness of potential collaborators, cooperation is not possible. To employ Akerlof's classic example, the market for used cars is one in which sellers have more information about the quality of the product or seller, which creates a situation where buyers risk overpaying for a poor-quality product. Trust is necessary to avoid this breakdown of trade and failure of cooperation.¹⁴ Actors, thus, have an incentive to demonstrate that they can be trusted so that the transactions and relationships are possible. Such is the case for markets with asymmetric information, whether licit or illicit. Many such markets exist, including those for hiring labour and buying stocks, to the market for counterfeit medication.¹⁵ Nonetheless, additional barriers to trade exist in illicit markets due to the absence of trade-supporting mechanisms such as regulation.

In licit markets, collaborations can be supported by legal and social apparatus. Legal structures can function as a protection against the potential harm that comes with social relations, by legally binding the actions of individuals in the arrangement.¹⁶ Contracts and product standards ensure that quality and expectations must be met, or, otherwise, the individual will be legally sanctioned. Additionally, repeated interaction is commonplace in licit markets, alongside high levels of transparency, which facilitate

¹² Munksgaard, "Building a Case for Trust"

¹³ Akerlof, George A. "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism." *The Quarterly Journal of Economics* 84, no. 3 (1970): 488-500.

¹⁴ Munksgaard, "Building a Case for Trust"

¹⁵ Beckert, Jens, and Frank Wehinger. "In the Shadow: Illegal Markets and Economic Sociology." *Socio-Economic Review* 11, no. 1 (2013): 5-30.

¹⁶ Von Lampe and Johansen, "Organized Crime and Trust"

informational symmetry and trust. Alongside this, shared norms, interpersonal relationships, and reputational considerations make the establishment and maintenance of trust possible and common in licit markets.¹⁷

Trust Problems in Illicit Markets

Illicit markets amplify the need for trust due to the clandestine nature of criminal activities, which are characterised by uncertainty, secrecy, and additional external threats. Numerous challenges to cooperative relationships exist in illicit markets that do not in licit markets.¹⁸ For sellers, the omnipresent threat of law enforcement makes risk inherent to operations and, thus, establishes a “special need for trust”.¹⁹ With every transaction, criminals expose themselves to the risk of arrest. Consequently, it is significantly more difficult for them to find collaborators and customers, and successfully operate than for businesses in licit markets. Nonetheless, many bear this risk of arrest, largely because the potential payoffs are so high.²⁰

Risk in illicit markets also arises from other criminal actors, due to the absence of the rule of law.²¹ Unlike in licit markets, there is no third-party conflict resolution and there are no legal frameworks, such as contracts and product regulations, that are often used to bind people.²² As a result, there is no institutional trust. Without regulatory standards, buyers in illicit markets must be cautious about the risk of low-quality or overpriced goods due to informational asymmetries.²³ In the case of illicit goods such as drugs, poor-quality products can also have major health consequences. Additionally, collaboration and recruitment in criminal spheres are difficult because there are

¹⁷ Von Lampe and Johansen, "Organized Crime and Trust"

¹⁸ Tzanetakis, Meropi, Gunnar Kamphausen, Bernd Werse, and Richard von Laufenberg. "The Transparency Paradox: Building Trust, Resolving Disputes and Optimizing Logistics on Conventional and Online Drugs Markets." *International Journal of Drug Policy* 35 (2016): 58-68.

¹⁹ Tzanetakis et al., "The Transparency Paradox", 67.

²⁰ Yip et al., "Trust Among Cybercriminals?"

²¹ Tzanetakis et al., "The Transparency Paradox"

²² Munksgaard, "Building a Case for Trust"

²³ Munksgaard, "Building a Case for Trust"

incentives for collaborators to deviate in pursuit of individual profits.²⁴ With no legal mechanisms to prosecute individuals or protect rights, cooperative arrangements are unenforceable, which leaves criminal actors vulnerable to the possibility that these arrangements might be violated.²⁵ Actors participating in markets outside of the law consequently become easy targets for other criminals. Furthermore, criminals have an incentive to scam others as they can increase their profits without fear of legal repercussions.

In the event of loss or mistreatment in illicit markets, actors have little opportunity for compensation or justice.²⁶ Without regulatory protections, actors in illicit settings must rely on different mechanisms to facilitate cooperation and sanction behaviour that violates it. Given actors in the illicit market are operating illegally, the crime reporting incidence is low as participants can simultaneously be victims and offenders.²⁷ Moreover, many in criminal spheres may reject formal mediation due to beliefs held about institutions like the police, or considerations that criminal disputes are not taken seriously. For some, eliciting police support is seen as reputationally damaging, as it signals weakness.²⁸ As a result, many victims avoid formal mediation in favour of enacting “street justice”, by which victims avoid law enforcement and instead utilise alternative resolution approaches such as violence.²⁹ In drug markets, for example, Jacques and Wright determine that such street – or “popular” – justice is “conflict management absent the government”, which is performed by the people, not the police.³⁰ Actors must choose to *tolerate* deviance, *avoid* it, *negotiate* with those involved, or to *retaliate* against it. Depending on the criminal setting, different methods are preferred. Violent retaliation in response to deviance is common in drug markets in poor,

²⁴ Densley, "Street Gang Recruitment"

²⁵ Beckert and Wehinger, "In the Shadow"

²⁶ Holt, Thomas J., Olga Smirnova, and Alice Hutchings. "Examining Signals of Trust in Criminal Markets Online." *Journal of Cybersecurity* 2, no. 2 (2016): 137-145.

²⁷ Jacques, Scott, and Richard Wright. "How Victimized Drug Traders Mobilise Police." *Journal of Contemporary Ethnography* 42, no. 5 (2013): 545-575.

²⁸ Jacques and Wright, "How Victimized Drug Traders Mobilise Police."

²⁹ Jacques and Wright, "How Victimized Drug Traders Mobilise Police.", 547.

³⁰ Jacques, Scott, and Richard Wright. "Informal control and illicit drug trade." *Criminology* 49.3 (2011): 733.

inner-city areas, while toleration or avoidance is more commonplace in suburban drug markets.³¹

Credit and debt can be important in many illicit markets. Holding large inventories of illicit goods heightens criminals' risk of arrest or theft. As a result, this tends to be undesirable. Consequently, many sellers aim to redistribute their goods quickly.³² Offering credit schemes can improve their ability to rapidly redistribute goods, but without the legal apparatus of above-ground debt markets, credit makes sellers vulnerable to scams. Establishing trust is, therefore, beneficial to criminals as it enables them to enact credit relationships and, thus, increases their flexibility and profitability.

Resolving Trust Problems in Illicit Markets

Given the unique array of trust problems present in illicit markets, mechanisms to overcome these are essential if the market is to function effectively. Thus, to benefit from engaging in illicit markets, criminals employ tactics such as violence, utilising social capital and trust signalling. Violence – or the threat thereof – is often used to enforce market functions, while relationships prove important to engaging in market exchange at all. Meanwhile, signalling aids actors in determining with whom to work.

Violence

Despite a criminal's ability (and need) to build trust, “no basis of trust is strong enough to rule out the possibility of betrayal”.³³ To maintain the functionality of illicit activities, actors must impose sanctions on those that violate arrangements.³⁴ In such circumstances, criminals, such as organised crime groups, utilise mechanisms such as threats of violence, ostracisation, and violence.³⁵ Jacques et al. claim that it is the illegal

³¹ Jacques, Scott, and Richard Wright. "Informal control and illicit drug trade." *Criminology* 49.3 (2011): 729-765.

³² Moeller, Kim, and Sveinung Sandberg. "Credit and Trust: Management of Network Ties in Illicit Drug Distribution." *Journal of Research in Crime and Delinquency* 52, no. 5 (2015): 691-716.

³³ Von Lampe and Johansen, "Organized Crime and Trust", 176.

³⁴ Densley, "Street Gang Recruitment"

³⁵ Beckert and Wehinger, "In the Shadow"

nature of illicit markets that causes so much violence within them.³⁶ In the absence of legal conflict resolution mechanisms, criminal actors must turn to violence instead. To function as a deterrent, though, violent threats must also be seen as credible, so collaborators must trust the group's willingness and capacity to exert violence.³⁷ Thus, actors must effectively signal their capacity for - and willingness to use violence.³⁸

Whilst violence is undoubtedly important to conflict resolution in the absence of law enforcement, its role must not be overestimated. Violent retributions come with too many drawbacks to be utilised in most instances.³⁹ Generally, successful criminals will avoid unnecessary use of violence.⁴⁰ Heightened violence is costly in terms of resources, and comes with unwanted consequences such as attracting attention, including from the police and the public.⁴¹ Furthermore, many crime groups claim to protect their members (which can be a strong draw to the group for potential members) so in-group violence contradicts their claims and may damage the group's reputation, hinder recruitment, and diminish trust in the group.⁴² Violence, or threats of violence, are arguably necessary in criminal markets, but, in the long run, it does not serve as an adequate mechanism to enforce cooperation, so trust-based solutions are the most feasible alternative.⁴³

Social Capital

Collaboration comes with many risks in criminal settings. Nonetheless, actors still choose to collaborate. The primary reason behind this is the desire for social capital.⁴⁴

³⁶ Jacques, Scott, Andrea Allen, and Richard Wright. "Drug Dealers' Rational Choices on Which Customers to Rip-off." *International Journal of Drug Policy* 25, no. 2 (2014): 251-256.

³⁷ Von Lampe and Johansen, "Organized Crime and Trust"

³⁸ Densley, "Street Gang Recruitment"

³⁹ Densley, "Street Gang Recruitment"

⁴⁰ Moeller, Kim, and Sveinung Sandberg. "Credit and Trust: Management of Network Ties in Illicit Drug Distribution." *Journal of Research in Crime and Delinquency* 52, no. 5 (2015): 691-716.

⁴¹ Beckert and Wehinger, "In the Shadow"

⁴² Densley, "Street Gang Recruitment"

⁴³ Beckert and Wehinger, "In the Shadow"

Densley, "Street Gang Recruitment"

⁴⁴ Yip at al., "Trust Among Cybercriminals?"

Authors like Granovetter⁴⁵ and Portes and Sensenbrenner⁴⁶ have shown that embeddedness in social networks can provide material benefits to individuals, and this holds for criminal actors. Yip et al. describe social capital as “the advantages that arise from the connections with others”.⁴⁷ Such advantages may include access to resources and information, trust building, obligations, or social norms. Thus, collaboration is worthwhile to those in illicit markets because in many cases the associated rewards outweigh the risks, such as punishment by law enforcement.

Social networks provide criminals with an opportunity to build their reputations and establish long-term criminal collaborations.⁴⁸ Social connections are so important because they are a means to build trust in an otherwise low-trust setting. Actors foster this trust through repeat interactions and relationship building or taking advantage of existing connections⁴⁹. It has been found, for example, that drug dealers are more likely to defraud strangers than long-term customers⁵⁰. Existing friendships and familial relationships, or shared ethnicity or locality help build trust in illicit markets.⁵¹ As trust is produced through experience, long-standing social connections reduce uncertainty.⁵² Consequently, personal connections can make favourable co-offenders. In contrast to licit markets, actors in illicit markets rely heavily on “pre-modern trust devices”, which means that illicit market activity depends upon personal relationships more than institutions.⁵³ Social capital is, therefore, hugely important to the establishment of trust in illegal markets. Moreover, networks can serve as a means of regulation. When criminal activities are embedded in social networks, actions that violate the group’s code can be sanctioned with ostracization. If groups are based on long-running relationships, this

⁴⁵ Granovetter, Mark S. "The Strength of Weak Ties." *American Journal of Sociology* 78, no. 6 (1973): 1360-1380.

Granovetter, Mark. *Getting a Job: A Study of Contacts and Careers*. University of Chicago Press, 2018.

⁴⁶ Portes, Alejandro, and Julia Sensenbrenner. "Embeddedness and Immigration: Notes on the Social Determinants of Economic Action." In *The Sociology of Economic Life*. London: Routledge, 1993: 93-115.

⁴⁷ Yip et al., "Trust Among Cybercriminals?", 519.

⁴⁸ Beckert and Wehinger, "In the Shadow"

⁴⁹ Munksgaard, "Building a Case for Trust"

⁵⁰ Jacques et al., "Drug Dealers' Rational Choices on Which Customers to Rip-off."

⁵¹ Densley, "Street Gang Recruitment"

⁵² Munksgaard, "Building a Case for Trust"

⁵³ Beckert and Wehinger, "In the Shadow"

functions as a much stronger threat. Overall, social capital serves as a means to establish and maintain trust in the setting of illicit markets.

Trust Signalling

Signalling theory, which has its roots in economics and biology, demonstrates how people, including criminal actors, communicate attributes in the presence of asymmetric information.⁵⁴ To reap the benefits of cooperation in illicit markets, actors must evaluate the trustworthiness of their potential co-offenders. Given the risks involved in co-offending, picking an appropriate collaborator is important. A good co-offender will possess sufficient trust-warranting properties – the presence of these properties determines whether an actor wishes to interact with them or not.⁵⁵ Organised crime groups, for example, highly value characteristics like loyalty, trustworthiness, and competence in potential recruits or collaborators due to the precarious market in which they operate. In addition, more specialised skills like toughness or a readiness to exert violence are essential to groups such as street gangs.⁵⁶ Since observing these properties directly is not possible, they must be inferred through the signs and signals that an individual exhibits.⁵⁷

Signals are the features that an individual deliberately displays to manipulate perceptions about themselves.⁵⁸ These features are anything perceivable about an individual, whether that be their behaviour or their physical presentation. Signs, instead, are anything that can impact people's views about an individual. These may include how an individual dresses, tattoos, accents or mannerisms. Signs are not necessarily noticed, but they have the capacity to be and can, thus, be transformed into signals - signs are "dormant potential signals".⁵⁹ Even if signs may not have been purposely chosen to reflect certain characteristics, they can be utilised to do so at any point.

⁵⁴ Gambetta, Diego. "Codes of the Underworld: How Criminals Communicate." Princeton: Princeton University Press, 2009.

⁵⁵ Densley, "Street Gang Recruitment"

Gambetta, Diego. "Signalling" In *The Oxford Handbook of Analytical Sociology*, edited by Peter Bearman and Peter Hedström. Oxford: Oxford University Press, 2011.

⁵⁶ Densley, "Street Gang Recruitment"

⁵⁷ Gambetta, "Signalling"

⁵⁸ Gambetta, "Codes of the Underworld"

⁵⁹ Gambetta, "Codes of the Underworld", xv.

Together, signs and signals determine how people are viewed by others, and they are how an individual is judged as trustworthy.⁶⁰ With asymmetric information, signalling is a means for actors to indicate the presence of invisible characteristics, like trustworthiness, through visible signs and reduce the uncertainty related to social interaction.⁶¹ A major problem arises from signalling; however, a signal that can be emitted to reflect an individual's characteristic can often also be mimicked by another trying to pose.⁶² In this regard, signals lose their value if they can be easily faked. Given the lack of enforceability of trust agreements in illegal markets, this causes a big issue as individuals have a strong incentive to fake signals.⁶³ The extent to which fake signals occur depends on the cost of signals.

Emitting signals entails costs. Being part of the yakuza, for example, requires the cost of bearing their signature tattoos.⁶⁴ These elaborate tattoo designs signal both members' toughness, through enduring the painful process of acquisition, and their commitment to crime life, by foregoing the opportunity to re-enter refined society. Only those who are willing to commit to the yakuza would get such tattoos. Whilst such tattoos can theoretically be false signals, the resulting social exclusion and pain is a cost too high for most to fake.

High costs alone, however, might also put honest signallers off. Generally, though, there is a signalling cost differential based on the signaller: it tends to be costlier to emit a false signal than a genuine one.⁶⁵ Gangs in London, for example, recruit from specific localities and potential recruits can easily signal that they are from that area through not only mutual connections, but also hard-to-fake local knowledge and proximity.⁶⁶ It is, however, much harder to credibly mimic this. Signals that are cheap for the honest signaller to omit but costly for the false signaller are most effective, as they result in fewer mimickers. Thus, in equilibrium, only honest signallers could afford to signal. It is,

⁶⁰ Gambetta, "Codes of the Underworld: How Criminals Communicate."

⁶¹ Jann, Ben, and Wojtek Przepiorka, eds. *Social Dilemmas, Institutions, and the Evolution of Cooperation*. Berlin: De Gruyter Oldenbourg, 2017.

⁶² Gambetta, "Signalling"

⁶³ Munksgaard, "Building a Case for Trust"

⁶⁴ Gambetta, "Codes of the Underworld: How Criminals Communicate."

⁶⁵ Gambetta, "Signaling"

⁶⁶ Densley, "Street Gang Recruitment"

therefore, in the interest of genuine sellers and buyers to produce signals that are relatively cheap to emit but costly to mimic, as it makes it possible for them to establish trust while still making it easy for honest signallers to take part⁶⁷. Trust signalling is, thus, hugely important to criminal actors to establish trust and enable cooperation in what is otherwise a trust-deprived setting.

Trust Problems in Online Illicit Markets

Illicit markets have seen massive developments in recent decades with the emergence of cryptomarkets - online marketplaces where users are anonymised and communication is encrypted.⁶⁸ Undoubtedly, these markets have created new opportunities for criminals. The international scope of cryptomarkets has reshaped the process of buying and selling illegal goods by eliminating geographic limitations on trade.⁶⁹ Underground connections, in the traditional sense, are no longer necessary to purchase or distribute illicit goods. While offline illicit markets rely on secrecy and interpersonal relationships, paradoxically, online illicit markets list publicly (albeit under fake identities) but trade anonymously.⁷⁰ In contrast to traditional criminal markets, illegal activity is conducted openly, while criminals hide behind aliases. This shift has introduced new challenges to establishing and maintaining trust between criminal actors.

Whilst the same overarching threats of law enforcement and asymmetric information between actors remain in online settings, the anonymity inherent to cryptomarkets further hinders trust building and means of social control.⁷¹ Moreover, in online markets, the omnipresent threat of law enforcement poses the risk of arrest and site shutdown, platforms are saturated with scammers (due to a strong incentive to scam), and it is often impossible for victims to seek retribution. One common example of this is the exit scam – when a vendor retires from the market and takes customers' money without

⁶⁷ Holt et al., "Examining signals of trust in criminal markets online."

⁶⁸ Tzanetakis et al., "The Transparency Paradox"

⁶⁹ Tzanetakis et al., "The Transparency Paradox"

⁷⁰ Tzanetakis et al., "The Transparency Paradox"

⁷¹ Dupont, Benoit, Antoine M. Côté, Jean-Ian Boutin, and Jean Fernandez. "Darkode: Recruitment Patterns and Transactional Features of 'the Most Dangerous Cybercrime Forum in the World'." *American Behavioral Scientist* 61, no. 11 (2017): 1219-1243.

fulfilling orders.⁷² In the absence of impactful sanctions, actors have a financial incentive to conduct exit scams, especially if they would retire anyway. Naturally, this risky environment increases the need for strong trust between actors, however, anonymity (despite aiming to protect users from law enforcement) poses a problem for fostering such trust. To overcome the trust deficit that exists in online illegal settings, cryptomarkets have designed technological mechanisms to build trust amongst their users, while users themselves try to signal their trustworthiness to others.⁷³

Resolving Trust Problems in Online Illicit Markets

Cryptomarkets are by design “signalling environments” that are devised by administrators, who determine which signalling opportunities are incorporated into the platform.⁷⁴ Consequently, the transactional relationship diverges from a dyadic relationship to a triangular relationship between the buyer, seller, and administrator.⁷⁵ Trust must be established within the mechanisms provided by the platform. Hence, market technology shapes trust relations and transactions. This exposes market participants to risk that stems from dependence on the market technology and administrators.⁷⁶ The systems are responsible for the distribution of risk, and as a result, administrators and vendors hold the power.⁷⁷

Just as reputation is vital to criminals in offline settings, it also plays an important role in fostering trust in cryptomarkets, many of which have integrated reputation mechanisms.⁷⁸ As in licit online marketplaces, like Gumtree or Depop, tools are used in

⁷² Tzanetakakis et al., "The Transparency Paradox"

⁷³ Lusthaus, Jonathan. "Trust in the World of Cybercrime." *Global Crime* 13, no. 2 (2012): 71-94.

⁷⁴ Maras, Marie-Helen, Jana Arsovska, Alex S. Wandt, and Karen Logie. "Keeping Pace with the Evolution of Illicit Darknet Fentanyl Markets: Using a Mixed Methods Approach to Identify Trust Signals and Develop a Vendor Trustworthiness Index." *Journal of Contemporary Criminal Justice* (2023): 10439862231159530: 4.

⁷⁵ Tzanetakakis et al., "The Transparency Paradox"

⁷⁶ Bancroft, Angus, Tim Squirrell, Anne Zauneder, and Irene Rafanell. "Producing Trust Among Illicit Actors: A Techno-Social Approach to an Online Illicit Market." *Sociological Research Online* 25, no. 3 (2020): 456-472.

⁷⁷ Tzanetakakis et al., "The Transparency Paradox"

⁷⁸ Tzanetakakis et al., "The Transparency Paradox"

online illicit markets to facilitate transactions by enabling trust building. These reputation mechanisms, such as built-in review systems, are in place to encourage vendors to complete transactions to a high standard, thus establishing trust in vendors.⁷⁹ On one dark-web marketplace, Silk Road, such trust-building infrastructure was integral to transactions, as reviews systems helped users make trust judgements on other anonymous users.⁸⁰ Through positive reviews, vendors signal that they are reliable and trustworthy. Often positive reviews are a result of not only transaction completion but also high levels of customer service, including fast replies and discrete packaging.⁸¹ Reputation scores play a “principle role in the gaining or loss of vendor trust” and are more important than even the product range or prices on offer⁸². Thus, establishing trust is a method for improving both a vendor’s reputation and their demand.

Together with positive reviews, vendors signal their trustworthiness in several ways. Prior to the transaction, strong customer service is a means to signal their reliability.⁸³ Providing additional support demonstrates sellers’ commitment to the deal. Furthermore, users’ profile pages are strong points of signalling.⁸⁴ They are an opportunity to signal trust through language and presentation, but normally also include vendors’ ratings and number of transactions.⁸⁵ A high number of transactions functions in itself as a positive indicator of trustworthiness. Combined, these factors build sellers’ reputations, which are hugely influential in vendor selection.⁸⁶ Furthermore, repeat interactions are common and reinforce the trust relationship between the buyer and seller.⁸⁷

Discussion forums are another popular mechanism to establish and maintain trust among buyers and sellers in illicit markets. Forums allow for the dispersal of

⁷⁹ Maras at al., "Keeping Pace with the Evolution of Illicit Darknet Fentanyl Markets"

⁸⁰ Christin, Nicolas. "Traveling the Silk Road: A measurement analysis of a large anonymous online marketplace." *Proceedings of the 22nd international conference on World Wide Web*. 2013.

⁸¹ Tzanetakis et al., "The Transparency Paradox"

⁸² Maras at al., "Keeping Pace with the Evolution of Illicit Darknet Fentanyl Markets"

⁸³ Holt et al., "Examining signals of trust in criminal markets online."

⁸⁴ Tzanetakis et al., "The Transparency Paradox"

⁸⁵ Holt et al., "Examining signals of trust in criminal markets online."

⁸⁶ Maras at al., "Keeping Pace with the Evolution of Illicit Darknet Fentanyl Markets"

⁸⁷ Munksgaard, "Building a Case for Trust"

information, including evaluations of vendors.⁸⁸ Similar to review systems, this reduces the uncertainty and risk faced by buyers. Vendors can also signal their reliability through forum interactions.⁸⁹ Furthermore, the publicity of forums creates a means to punish scammers by publishing their scams, which can lead to ostracization or banning from the site.⁹⁰ Naturally, this acts as a deterrent to would-be-scammers. Although users could re-join the platform with a new account, they would be tasked with rebuilding their reputation and trust among buyers. Community is vital to many cryptomarkets, and some platforms rely heavily on this as a risk-management approach.⁹¹ Moral sanctioning in many ways replaces traditional methods of retribution.

Another trust-building system integrated into many online illicit marketplaces is an escrow service. Such systems aim to reduce the inherent risk to buyers on cryptomarkets by guaranteeing a successful transaction using an intermediary that holds the payment until the transaction is complete.⁹² Escrow systems are designed to generate and signal trust amongst users as they reduce the risk to buyers.⁹³ Platforms tend to have a single escrow agent, who is responsible for holding escrow money, and is therefore in a position of great trust.⁹⁴ Although enabling trust between users, this system reallocates power to administrators.⁹⁵ Concentrating so much money in the hands of an escrow agent provides the opportunity for a large-scale exit scam that is more impactful than that of just one vendor. In such cases, victims are essentially helpless and have no chance of recovering their losses given the anonymity and illegality of where the crime took place. Whilst some defrauded victims have sought retribution through means such as doxing the perpetrators, this is rarely effective and does not serve as a credible incentive against committing the crime. Consequently, some platforms have opted to avoid escrow services due to this risk.⁹⁶

⁸⁸ Maras et al., "Keeping Pace with the Evolution of Illicit Darknet Fentanyl Markets"

⁸⁹ Tzanetakis et al., "The Transparency Paradox"

⁹⁰ Lusthaus, "Trust in the World of Cybercrime"

⁹¹ Bancroft et al., "Producing Trust Among Illicit Actors"

Tzanetakis et al., "The Transparency Paradox"

⁹² Holt et al., "Examining signals of trust in criminal markets online."

⁹³ Lusthaus, "Trust in the World of Cybercrime."

⁹⁴ Holt et al., "Examining signals of trust in criminal markets online."

⁹⁵ Tzanetakis et al., "The Transparency Paradox"

⁹⁶ Tzanetakis et al., "The Transparency Paradox"

Many of these systems in place reduce uncertainties between users yet cannot protect users against risks such as falling victim to an exit scam or other predatory behaviour. Moreover, while sites like Silk Road may have predominantly positive reviews, scams still occurred, just mostly “out of escrow”.⁹⁷ Thus, these measures cannot fully protect users. Dupont et al. argue that the most effective method to overcome these persistent issues and more effectively build trust in cryptomarkets is to restrict entry to platforms.⁹⁸ Restricting members serves to reduce the risk of law enforcement and scamming by building a closed community of skilled criminals that is based on trust. While the platform Dupont et al. claimed to be such an elite hacking forum with limited entry, the incentive to increase users’ profits by growing the marketplace resulted in a platform that was not very exclusive and faced the same issues as many other cryptomarkets. This shows that, although restricting users can be a means to foster trust, strong profit incentives exist to open platforms.

Ultimately, the fundamental processes of trust building in online illicit markets are similar to their offline counterparts despite the differences in trust-building mechanisms.⁹⁹ In both settings, informal social control is vital to relations, and building social connections, through repeated exchanges, fosters trust amongst actors. Different cryptomarkets have built platforms that function despite the additional challenges to trust building. In many ways, the success of these cryptomarkets has been due to how trust-establishing mechanisms have been built into the platforms. Even as criminal spheres develop technologically, it is likely they will continue to rely on social apparatus to facilitate collaboration and trade.

Conclusion

Illicit markets and most criminals would not be able to function successfully without trust. In the lawless illicit sphere, where risks are heightened from the threat of arrest and scamming, trust relations are necessary for co-offending and market relations. To acquire the social capital that makes criminal activities possible, actors draw on existing

⁹⁷ Christin, "Traveling the Silk Road"

⁹⁸ Dupont et al., "Darkode"

⁹⁹ Munksgaard, "Building a Case for Trust"

relationships and form new ones. Forming relationships in the illicit sphere requires vulnerability as it unavoidably entails risk. While risk is inevitable, actors try to minimise it through trust. Trust signalling is important in illicit markets as it allows actors to build trust by signalling their trustworthiness and other desirable qualities.

Different signals have differing success in different groups. While the yakuza want members to signal their commitment by branding themselves with elaborate tattoos, alternatively London street gangs seek recruits to signal their backgrounds and propensity for violence. The emergence of online illicit markets, however, challenged this use of signalling between criminals due to the anonymity inherent to cryptomarkets. Without the capacity to learn anything about an individual, it can be difficult to evaluate their trustworthiness. Platforms, however, have been designed as signalling environments to overcome this problem; integrated features, including review mechanisms, chat forums, and escrow services, foster trust amongst users.

Building trust in a trust-poor setting is undoubtedly a challenge, but the cooperative relations of criminal actors show that it is both possible and common, especially when the reward for cooperation is high. Ultimately, while they use different means, the behaviour of online criminals is not very different from their offline counterparts: trust is established and maintained through signalling and interpersonal relationships. More generally, a criminal actor's trust-building behaviour is a reaction to the high-risk setting in which they operate, as without trust they could not function. Understanding how trust is built and maintained in criminal spheres can, thus, be crucial to law enforcement aiming to curtail illicit activity.

Bibliography

- Akerlof, George A. "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism." *The Quarterly Journal of Economics* 84, no. 3 (1970): 488-500.
- Bakken, Silje A. "Drug Dealers Gone Digital: Using Signalling Theory to Analyse Criminal Online Personas and Trust." *Global Crime* 22, no. 1 (2021): 51-73.
- Bancroft, Angus, Tim Squirrell, Anne Zaunseder, and Irene Rafanell. "Producing Trust Among Illicit Actors: A Techno-Social Approach to an Online Illicit Market." *Sociological Research Online* 25, no. 3 (2020): 456-472.
- Beckert, Jens, and Frank Wehinger. "In the Shadow: Illegal Markets and Economic Sociology." *Socio-Economic Review* 11, no. 1 (2013): 5-30.
- Christin, Nicolas. "Travelling the Silk Road: A Measurement Analysis of a Large Anonymous Online Marketplace." In *Proceedings of the 22nd International Conference on World Wide Web*, 2013.
- Densley, James A. "Street Gang Recruitment: Signalling, Screening, and Selection." *Social Problems* 59, no. 3 (2012): 301-321.
- Dupont, Benoit, Antoine M. Côté, Jean-Ian Boutin, and Jean Fernandez. "Darkode: Recruitment Patterns and Transactional Features of 'the Most Dangerous Cybercrime Forum in the World'." *American Behavioral Scientist* 61, no. 11 (2017): 1219-1243.
- Gambetta, Diego. "Codes of the Underworld: How Criminals Communicate." Princeton: Princeton University Press, 2009.
- Gambetta, Diego. "Signalling" In *The Oxford Handbook of Analytical Sociology*, edited by Peter Bearman and Peter Hedström. Oxford: Oxford University Press, 2011.
- Gambetta, Diego. "Signaling Theory and Its Applications." *Résumé des Conférences du Collège de France (2007-2008)* 108 (2008): 895-896.
- Granovetter, Mark S. "The Strength of Weak Ties." *American Journal of Sociology* 78, no. 6 (1973): 1360-1380.
- Granovetter, Mark. *Getting a Job: A Study of Contacts and Careers*. University of Chicago Press, 2018.

- Holt, Thomas J., Olga Smirnova, and Alice Hutchings. "Examining Signals of Trust in Criminal Markets Online." *Journal of Cybersecurity* 2, no. 2 (2016): 137-145.
- Jacques, Scott, Andrea Allen, and Richard Wright. "Drug Dealers' Rational Choices on Which Customers to Rip-off." *International Journal of Drug Policy* 25, no. 2 (2014): 251-256.
- Jacques, Scott, and Richard Wright. "How Victimised Drug Traders Mobilise Police." *Journal of Contemporary Ethnography* 42, no. 5 (2013): 545-575.
- Jacques, Scott, and Richard Wright. "Informal control and illicit drug trade." *Criminology* 49.3 (2011): 729-765.
- Jann, Ben, and Wojtek Przepiorka, eds. *Social Dilemmas, Institutions, and the Evolution of Cooperation*. Berlin: De Gruyter Oldenbourg, 2017.
- Lusthaus, Jonathan. "Trust in the World of Cybercrime." *Global Crime* 13, no. 2 (2012): 71-94.
- Maras, Marie-Helen, Jana Arsovska, Alex S. Wandt, and Karen Logie. "Keeping Pace with the Evolution of Illicit Darknet Fentanyl Markets: Using a Mixed Methods Approach to Identify Trust Signals and Develop a Vendor Trustworthiness Index." *Journal of Contemporary Criminal Justice* (2023): 10439862231159530.
- Moeller, Kim, and Sveinung Sandberg. "Credit and Trust: Management of Network Ties in Illicit Drug Distribution." *Journal of Research in Crime and Delinquency* 52, no. 5 (2015): 691-716.
- Munksgaard, Rasmus. "Building a Case for Trust: Reputation, Institutional Regulation and Social Ties in Online Drug Markets." *Global Crime* (2022): 1-24.
- Portes, Alejandro, and Julia Sensenbrenner. "Embeddedness and Immigration: Notes on the Social Determinants of Economic Action." In *The Sociology of Economic Life*. London: Routledge, 1993: 93-115.
- Tzanetakis, Meropi, Gunnar Kamphausen, Bernd Wense, and Richard von Laufenberg. "The Transparency Paradox: Building Trust, Resolving Disputes and Optimising Logistics on Conventional and Online Drugs Markets." *International Journal of Drug Policy* 35 (2016): 58-68.

Von Lampe, Klaus, and Petter Ole Johansen. "Organized Crime and Trust: On the Conceptualization and Empirical Relevance of Trust in the Context of Criminal Networks." *Global Crime* 6, no. 2 (2004): 159-184.

Yip, Michael, Caroline Webber, and Nigel Shadbolt. "Trust Among Cybercriminals? Carding Forums, Uncertainty and Implications for Policing." *Policing and Society* 23, no. 4 (2013): 516-539.