The organisational structure, social networks and criminal activities of outlaw motorcycle gangs: Literature review

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Introduction

Outlaw motorcycle gangs (OMCGs) are often reported to be disproportionately involved in crime, especially crime that is considered ‘organised’ such as drug trafficking (Barker & Human 2009). OMCGs are increasingly a focus for law enforcement intervention and academic research (eg Blokland, van der Leest & Soudijn 2019; Jahnsen 2018). Debate continues regarding the organisational structure of such groups and the relationship between their organisational structure and the extent and types of criminal activities they undertake (eg Lauchs 2019b). This paper reports on a systematic review of existing literature to address the following question: what are the network and organisational structures that underpin the criminal activity of OMCGs? The study highlights the use of a network perspective to study the organisational structures of OMCGs.
Outlaw motorcycle gangs

OMCGs have become synonymous with organised crime (Lauchs, Bain & Bell 2015). Originating in the United States after World War II, the ‘Big Four’ clubs (Hells Angels, Outlaws, Bandidos and Pagans) feature prominently in public, political and academic discourse on crime and disorder (eg Barker 2014; Haut 1999; Scaramella, Brenzinger & Miller 1997). Over the years, the expansion of these clubs has resulted in an international OMCG presence including clubs and chapters operating in Germany, the United Kingdom, the Netherlands, Canada and Australia (Barker 2011: 212). OMCGs were, for a time, considered nothing more than a social nuisance (Monterosso 2018). More recently, however, OMCGs have been targeted by law enforcement agencies as sophisticated transnational organised criminal groups (Barker 2014; Gottschalk 2016) whose primary interest is to make money through various illegal activities including narcotics manufacturing and trafficking, prostitution, firearms trafficking, extortion, and money laundering (Collier 2014; McDermott 2006; Myers 2006).

There is wide scholarly disagreement and debate about the definition of ‘organised crime’. Some authors (eg Finckenauer 2005; Hagan 2006) suggest disaggregating the concept of organised crime into organised criminal activities and organised criminal groups. Using this nomenclature, OMCGs can be classified as organised criminal groups which are known to engage in some organised criminal activities such as drug trafficking. There is ongoing controversy concerning the extent to which OMCGs are involved in serious organised criminal activity (Barker 2011; Lauchs & Gilbert 2017). More specifically, the question of whether or how ‘all, or the majority [of members], are involved in organised criminal activity at the direction of the leadership coalition’ (Barker 2014: 22) is central to the limited scholarly research.

Social and organisational structure of criminal groups

Before discussing the method employed in our literature review, we provide a brief overview of the literature on the organisational structure of criminal groups. Three main types of associational structure have been identified: markets, hierarchies and networks (Powell 1990; Thompson 2003). These should be considered ideal types with hybrid types along a continuum for each type involving different levels of commitment and interdependence between participants (von Lampe 2015).

- Markets as a form of associational structure imply that individuals buy and sell in one-off transactions without any form of enduring business relationship. The illicit nature of illegal markets means that individuals tend to buy and sell over time in durable relationships.

- Hierarchies usually refer to a highly centralised organisational structure where formal administrative processes and rules are determined by the leadership. In this type of structure, the leadership group sets tasks and establishes and maintains a hierarchical system of leadership. Formal social power is centralised in the upper levels of management and leadership and there are clear boundaries between departments and clear lines of authority. In a seminal paper, Reuter (1983) challenged the notion of the hierarchical structure of organised criminal groups. In empirical analyses, leaders have often not emerged or have been found not to exert significant influence in criminal activities (eg Dorn, Murji & South 1992; Kenney 2007; Reuter 1983). For example, Kenney (2007: 26) found that the Colombian cocaine market was not hierarchical but composed of ‘fluid social systems where flexible exchange networks expand and retreat according to market opportunities and regulatory constraints’.
• Networks usually imply a set of actors, loosely associated with each other, and working towards some set of shared goals. Networks represent a highly dynamic associational structure, able to adapt quickly to external and internal changes and threats. In the conduct of organised criminal activities, network associational structures may facilitate the flow of information and goods and allow for swift adaptation to emerging business opportunities or law enforcement interventions.

In this review, we examine the observations from existing studies on whether the organisational structure of OMCGs, and in particular the associational structures that facilitate crime in such groups, can best be characterised as hierarchies or networks. We now turn to the method employed for the systematic review of the existing literature.

Method

A rapid review of the literature was conducted using an approach similar to that of Khangura et al. (2012). The search strategy aimed to capture published articles that focused on the organisational structure and criminal activities of OMCGs, including those that used social network analysis (SNA), published since 1990.

Literature searches were conducted in January 2020 using the following databases: ProQuest, Informit, EBSCO, Oxford University Press, JSTOR, Science Direct, Taylor & Francis, Web of Science, and Wiley. Literature searches used the following search string: ['Outlaw motorcycle' OR 'OMG' OR 'outlaw motorcycle gang*' OR 'OMCG' OR 'outlaw motor cycle gang*' OR 'Motorcycle gang' OR 'Motor Cycle Gang' anywhere and 'organisation' anywhere and 'crime*' OR 'Crim*' anywhere]. Sources were also identified through hand searches of references in relevant articles. To be included, articles must have been published in English between 1990 and 2020 and available in full text via open access, Flinders University library, or on request. Google Scholar was searched using the following search string: 'Outlaw motorcycle OR OMG OR OMCG OR SNA'.

As shown in Figure 1, articles were excluded when they did not specifically address organisational structure and/or criminal activities of OMCGs. For example, articles that only addressed issues related to policy, law enforcement strategies, legislation and regulation were excluded. After duplicates were removed, a total of 891 articles were then screened by both authors for relevance via review of title and abstract. To be included, the articles had to address organisational structure and/or criminal activities of OMCGs. Eighty-eight articles were selected for further review, of which 76 articles were available. After the papers were read in full and the inclusion criteria applied, 44 were selected for the final review. Articles included in the review are denoted in the References list. Of these, 30 articles were categorised as descriptive accounts (e.g., memories and impressions; Pool 2017). In the interests of brevity, we provide a brief overview of the findings of these descriptive articles, rather than an exhaustive summary of all of them. The remaining 14 articles collected data and specifically reported on organisational structure and/or criminal activities (the empirical studies).
Figure 1: PRISMA diagram of the search for literature on organisational structure and criminal activities of OMCGs

Articles identified through database searches (n=964)

Articles after duplicates removed (n=891)

Abstracts assessed for eligibility/availability (n=76)

Articles assessed in full for eligibility/availability (n=44)

Articles: new data and focus on organisational structure/criminal activities (n=14)

Articles: descriptive only/no new data (n=30)
Results and discussion

The descriptive accounts

The 30 descriptive articles included personal accounts of police and former bikers or members. Most of these accounts of OMCGs describe a rigid hierarchical structure similar to the system of military ranks (Vergani & Collins 2015). This organisational system is usually based on a written constitution, by-laws, a hierarchical leadership structure, payment of membership dues, and compulsory attendance at club meetings (Barker 2004). Infractions of the rules are punishable by fines or expulsion (Veno 2009). OMCG clubs usually consist of national, regional/state and local tiers (eg Lauchs & Gilbert 2017; Piano 2017), with regional groups known as chapters that consist of up to 30 members (Quinn & Forsyth 2009). Chapters are usually guided by but largely independent of the national club hierarchy (Piano 2017; Quinn & Forsyth 2009). Each OMCG chapter usually includes the elected positions of president, vice-president, secretary and treasurer. The sergeant-at-arms ensures the by-laws and rules of a club are upheld and is also responsible for the security of the clubhouse (Veno 2009). The role of the road captain is to research, plan and organise all club road trips (Scaramella, Brenzinger & Miller 1997: 13). Some OMCG clubs have support or puppet clubs that are independent groups but are under the control and authority of the dominant club.

The extent to which OMCGs are collectively engaged in organised criminal activity has been subject to growing scrutiny (Lauchs, Bain & Bell 2015: 32). In particular, questions have been posed about whether a minority of OMCG members might work together with other criminal groups (Monterosso 2018). The Australian Crime Commission (2013) similarly noted that the threat of OMCGs ‘arises from small numbers of members conspiring with other criminals for a common purpose’ (2013: 2). Lauchs and Gilbert (2017, citing Wolf, 1991) differentiated between conservative bikers (those who engage in spontaneous wild or violent behaviour) and radical bikers, who are more inclined to criminal enterprise for profit. They concluded that motorcycle clubs and their individual chapters are highly variable, with each positioned at different points on the conservative–radical continuum (Lauchs & Gilbert 2017: 171).

The empirical studies

Fourteen studies collected original data on OMCGs, organisational structure and/or criminal activities. Of these, eight looked at the relationship between criminal activities and membership within OMCGS without examining the organisational structure and hierarchy of the groups. Six studies made observations about the social organisation of OMCGs and their criminal activities.

Criminal activities and membership

Eight articles examined the criminal histories and activities of OMCG members but did not examine the organisational structure of the group or the criminal activities of members versus those in leadership positions. These articles are reviewed here to provide some background on the criminal activities conducted by members of OMCGs.
Barker and Human (2009) adopted a systematic reading of newspaper articles concerning members of the ‘Big Four’ OMCGs and found a preponderance of articles relating to drug trafficking, racketeering, brawling, weapons and murder. The most common type of criminal activity identified was ‘ongoing instrumental acts’, which the authors interpreted as organised criminal activity. Short-term instrumental acts were the least frequent and appeared to be primarily focused on the financial gain of individual members and did not involve the club as a whole.

Other studies have used official crime data to assess the criminality of OMCG members. Goldsworthy and McGillivray (2017) found that OMCG members were found guilty of less than one percent of all reported crime and that the top 10 charges against them were for relatively minor criminal matters. Another Australian study conducted by Morgan, Dowling and Voce (2020) found violence and profit-motivated offending to be common among Australian OMCGs. In fact, one in four members had been apprehended for a recent violence and intimidation offence while 52 percent had a recorded history of violent offending. Only one in eight members (13%) had a recent history of ongoing criminal enterprise, such as commercial drug supply, indicating organised criminal activity.

Three studies by Klement investigated the relationships between OMCG membership and criminal convictions in Denmark. These studies found that affiliation with an OMCG may increase the risk of involvement in crime, that crime committed by outlaw bikers represents a small proportion of all crime resulting in conviction, and that street gang violence predicted outlaw biker violence (Klement 2016a, 2016b, 2019). Blokland et al. (2019) found that offending among OMCG members was more prevalent, more frequent and more serious than among average motorcycle owners. OMCG members were also more likely to have spent time in prison, compared to the comparison group. Finally, Blokland, van der Leest and Soudijn (2019) found that over 85 percent of OMCG members had been convicted at least once. OMCG members were also convicted of offences that appeared to indicate organised criminal activity.

Organisational structure and criminal activities

Six articles reported on the relationship between the formal hierarchical organisation of OMCGs and criminal activities. In this section we discuss the three articles that examined organisational structure and criminal activities but did not employ SNA. The three articles that used SNA will be discussed in the next section.

Lauchs and Staines (2019) examined the involvement of OMCG membership and leadership in organised criminal activities such as illicit drug trafficking. They examined a sample of 112 individuals who were members of OMCGs, 16 of whom held leadership positions. They concluded that, for 12 of the 16 individuals, there was no indication of involvement in organised criminal activities. For the remaining four of the 16, there was evidence of involvement in organised criminal activities, and specifically trafficking of illicit drugs:

- A president of the Rebels was convicted of trafficking methamphetamine with two other individuals, although it was not clear whether or not they were members of an OMCG.
- A president of the Bandidos was convicted of manufacturing and trafficking methamphetamine and trafficking cannabis and LSD. At least one other member of the Bandidos, also in a leadership position within the chapter, was involved.
• A sergeant-at-arms of the Bandidos was involved in trafficking methamphetamine with at least one other Bandidos member.

• A secretary of the Hells Angels was involved in trafficking methamphetamine in collaboration with two other Hells Angels members.

Lauchs and Staines (2019) concluded that individuals in leadership positions in OMCG chapters who were involved in drug trafficking appeared to operate in small networks, and that leaders did not use their leadership positions to instruct others to engage in crime. They argued that ‘the serious offending uncovered was entirely the provenance of individuals and/or small cliques of OMCG members’ (Lauchs & Staines 2019: 85). Nonetheless, given the rigid hierarchical organisation of such groups and the influence and power exerted by those in leadership positions, it is not clear how the authors can rule out the possibility that leaders instructed or pressured members to undertake particular tasks. Furthermore, given the secrecy surrounding such clubs, the absence of evidence in this case may not be a reliable indicator of the absence of such dynamics.

In another paper, Lauchs (2019b) examined the criminal histories of members of the Gold Coast chapter of the Finks Motorcycle Club based on information extracted from a submission by Queensland Police Service to the Supreme Court to have the club listed as a criminal organisation. Of the individuals about whom information was extracted, 44 were patched members, two were nominees, and 17 were former members. Lauchs determined three potential outcomes that could be substantiated by the data:

• The Finks is a criminal organisation in which those in formal leadership positions will have convictions for organised criminal offences and/or there will be evidence that those in leadership positions direct or instruct other members or nominees to engage in criminal activity;

• The Finks is a criminal organisation in which criminal activity is supported and endorsed by other club members even though the majority of members are not directly involved in such crime; or

• Criminal activity is undertaken by members without the involvement or direction of the leadership, possibly by individuals or by small groups.

Lauchs (2019b) found that only 11 members had serious illicit drug related convictions and argued that this is evidence that individuals operated alone or in small groups. Of those involved in serious drug trafficking, two held leadership positions. He found no evidence that the leadership controlled or directed serious criminal activity but acknowledged that leaders could arrange for others to conduct criminal activity on their behalf. However, as mentioned previously, given the secrecy of OMCGs, such details would be unlikely to come to light even in police investigations. Lauchs found evidence that individuals and small groups were engaging in criminal activity, and that some OMCG members tolerated such criminal activity even though they were not actively involved (eg by not cooperating with law enforcement investigations). Indeed, 83 percent of members were not involved in organised criminal activities. He concluded that the benefit of being a criminally active member of an OMCG is that other members, even those not directly involved in criminal activities, could be relied on to maintain a code of silence around such activity.
Blokland, Soudijn and van der Leest (2017) analysed the criminal careers of 601 members of 12 OMCGs in the Netherlands. They found that criminal activity was common among members, including among those in formal leadership positions. Blokland, Soudijn and van der Leest (2017) employed a novel way of illustrating the relationship between social organisation and criminal activity, placing individual OMCG clubs on a continuum between a club and a gang. They plotted OMCGs on a graph with the percentage of known leaders with a criminal record on the x-axis and the percentage of known members with a criminal record on the y-axis. The diagonal of the graph illustrates the continuum between clubs and gangs, with clubs positioned at the zero intercept.

We use a modified version of this approach in which a matrix is used to illustrate the relationship between the proportion of members and leaders with criminal records (see Figure 2). The matrix comprises four quadrants. The bottom left quadrant includes clubs in which neither leaders nor members have high rates of criminal records (ie more than 50%). In the top left quadrant are clubs (or chapters) with a low proportion of members but a high proportion of leaders with criminal records. The bottom right quadrant includes clubs with a high proportion of members but a low proportion of leaders with criminal records. Finally, in the top right quadrant are clubs in which a high proportion of both members and leaders have criminal records.

**Figure 2: Matrix showing proportion of leaders and members with criminal records**
Blokland, Soudijn and van der Leest (2017) observed that different clubs fell at different points on the continuum depending on the percentage of members and leaders with a criminal record. Of the 12 clubs they examined, none fell in the upper left quadrant, one was in the lower left quadrant, three fell in the lower right quadrant, and eight were in the upper right quadrant. It is important to note that the criminal records used in the study included all offences and that the authors could not distinguish between street crimes and organised criminal activities. Further, this methodology does not confirm anything about the collaboration of leaders and members in criminal activity, only that both leaders and members have criminal records.

The authors found a range of patterns in the criminal histories of leaders and members of different clubs. For example, in one club a high proportion of both members and leaders had criminal records (80% and 60% respectively) placing this club in the upper right quadrant. Another club had a low proportion of both members and leaders with a criminal record (approximately 40% for each), placing it in the lower right quadrant. In contrast, two other clubs had a high overall proportion of members and leaders who had a criminal record (almost 100% for each), placing these clubs at the gang end of the spectrum and in the top right quadrant of our matrix.

Blokland, Soudijn and van der Leest (2017) noted that many Dutch OMCGs have support or puppet clubs whose members may be directed to engage in criminal activity to ensure full members of the OMCG are kept distanced from criminal activity and protected from law enforcement detection and intervention. In other words, the formal organisational structure of OMCGs may ensure that those of higher rank are less likely to be apprehended and convicted. That is, the formal organisational structure of OMCGs may ensure that those of higher rank are less likely to be apprehended and convicted than prospects, who bear the risk of committing crimes and being detected. We return to this point in the section on social network analysis below. In concluding their analysis, Blokland, Soudijn and van der Leest (2017) recommended that questions about criminal involvement of OMCGs and, by extension, the relationship between organisational structure and criminal activity, should be analysed at a lower level of aggregation—that is, not OMCGs broadly with generalisation made to all clubs and chapters, but at the level of clubs, chapters and even subgroups or cliques within chapters.

**A network perspective on organisational structure**

Three studies employed social network analysis (SNA) to examine the social structure of OMCGs. SNA is a set of analytical techniques, grounded in mathematical graph theory, that can be used for observing patterns in the ties between actors and visualising or mapping social networks (eg Borgatti, Everett & Johnson 2018). For example, SNA can be used to determine the relative position of actors in a network and to identify actors who are particularly active or influential in the network. There are a number of metrics or measures that can be generated through the use of SNA. For example, degree centrality is a measure of the number or proportion of ties an actor has to other actors. Actors high on degree centrality might be very influential or powerful actors in the network. Betweenness centrality is a measure of the extent to which an actor is positioned on the shortest paths (or links) between all other actors in the network and is a proxy for brokerage potential. Actors who are positioned as brokers between other actors may be able to strategically control the flow of information or other resources through the network.
McNally and Alston (2006) used data collected by Canadian intelligence agencies to reproduce three separate networks of OMCG chapters. No information is provided on the nature of the ties between network actors (co-offending ties, communication ties etc), so the results must be interpreted cautiously. The networks were relatively small compared with other criminal networks described in the literature (eg Bright, Hughes & Chalmers 2012; Hughes, Bright & Chalmers 2017; Morselli 2009), comprising 14, 13 and 16 actors respectively. The authors provide details of the analysis of one of these networks. They observed that centrality metrics did not directly mirror the formal hierarchical leadership of the group. The vice-president had the highest scores for both degree centrality and betweenness centrality. Another member who had no formal leadership position ranked second on degree centrality—higher than the president. Furthermore, while the vice-president and president were among those actors with the highest scores on degree centrality, other members of the leadership group did not have high centrality scores (ie degree or betweenness centrality). Based on these observations, McNally and Alston (2006: 16) note that the ‘organisational hierarchy of this OMCG is not indicative of the true power structure of influence of this criminal network’.

Morselli (2009) also used SNA to examine the organisational structure of OMCGs in Canada. The network included members of two groups. The first group was the Hells Angels OMCG. This network included the highest ranking members, other patched members, prospects, hang-arounds, friends, and 12 members of the Nomad chapter. The second was the Rockers OMCG, a group which was subordinate to all members of the Nomad chapter of the Hells Angels, and included patched members, strikers (equivalent to prospects), hang-arounds and friends. Morselli concluded that most actors who had high degree centrality held an official rank within the Hells Angels. In contrast, few of the Nomads had high degree centrality scores. Compared with the lower level formal ranks of the Hells Angels, the high-ranking Nomads more commonly had high scores on betweenness centrality, indicating that they were in strategic brokerage positions within the network. Indeed, Morselli (2009) found different patterns of degree and betweenness scores across the network: Nomads were low on degree and high on betweenness; Rockers were high on degree and low on betweenness; and Nomad prospects were high on both degree and betweenness. Morselli concluded that the network only partly mirrored the formal hierarchical organisation of the OMCG. Members high in the formal organisational hierarchy were not directly involved in criminal activities, and thus were less vulnerable to law enforcement interventions.

Rostami and Mondani (2019) examined three OMCG networks in Sweden: the Hells Angels and two of its support clubs: the Red and White Crew (RWC) and the Red Devils Motorcycle Club (RDMC). The networks constructed by Rostami and Mondani were co-offending networks in which a tie between two actors indicated that they were suspected of being involved in the same crime. Actors within each network included members of the group and non-members with whom members co-offended.

Overall, the three organisations exhibited similar formal hierarchical organisational structures but different patterns in the social structures involved in co-offending networks, the interconnectivity within the networks, and the types of offending undertaken within the networks. Interestingly, in all three networks most co-offending ties were to non-members. When members of the three organisations co-offended, they tended to do so with individuals from outside the club more than with other members.
Rostami and Mondani (2019) also examined ties between members of each group that represented co-offending between members of the same chapter of each respective club. In the RDMC network, this was 100 percent, for RWC it was 78 percent and for Hells Angels it was 74 percent. That is, when members of RDMC co-offend with each other, they co-offend exclusively with members of the same local chapter. In contrast, while Hells Angels and RWC are also primarily locally based, these clubs did collaborate with chapters elsewhere in Sweden. The authors observed that 15.2 percent of co-offending ties in the Hells Angels network were with others in the same organisation—twice as many as in RDMC (8.6%) and about three times as many as in RDMC (5.3%). The authors suggested that this may explain why the Hells Angels network tends to be involved in more sophisticated crime types. They posited that having a higher proportion of in-house co-offending ties may enhance security and reduce the chances of detection and apprehension by law enforcement agencies. The authors suggested that the different co-offending patterns indicate that the three groups are parts of one overarching organisation with different specialised functions. The RWC members act as stormtroopers for Hells Angels, RDMC members are used as a recruitment pool for organisational expansion of Hells Angels, and Hells Angels members collaborate as the overarching, controlling organisation with power and influence over the other two groups.

**Conclusion**

The results of this review indicate that some OMCG members have criminal histories. Where OMCG members engage in crime, especially crime that can be considered organised, it appears that they tend to operate in small, loose networks that may include other OMCG members but also individuals who are not members. There appears to be some overlap between offending networks and the formal hierarchical structure of OMCG chapters, though the extent of this overlap is poorly understood at present. The overlap is captured in the concept of ‘gang embeddedness’ (Pyrooz, Sweeten & Piquero 2013), which refers to ‘individual immersion within an enduring deviant network’ (2013: 241). Von Lampe (2016) notes that formal organisational hierarchies are not well adapted to illegal activities, and that most groups engaged in illicit marketplaces are loosely connected networks (see Morselli 2009). This may be why criminal activities (especially organised criminal activities) tend to occur in small informal networks that often do not include those in leadership positions within clubs and chapters. When leaders are involved in criminal activities they may be kept at a strategic distance and buffered by other club members or members of support clubs who undertake the risky activities. Informal associational structures and networks within OMCGs may be employed by some members to facilitate criminal conduct, including organised criminal activities. In other words, loosely connected networks may facilitate crime and ensure those who engage in crime are protected by other members from detection and apprehension. This suggests that criminal justice interventions are best targeted at these loose, informal networks rather than the formal organisational hierarchy of OMCGs (see Smith 2018).
To conclude, we draw on three possible scenarios regarding the relationship between the organisational structure of OMCGs and their criminal activities (von Lampe 2016):

1. The *rotten apples scenario*, in which individual members act alone or in collaboration with other members or with non-members to commit crimes. This might occur with or without the knowledge and support of the club’s leadership. Members are not directed to engage in crime and are free to decide whether or not to engage in crime, what type of crime to commit, and how and when to commit crime. In this case, there is little overlap between the criminal activities and the formal organisational structure of the club or chapter. The criminal activities are conducted by small cliques or networks within the club or chapter (and may involve non-members) and power and influence in these networks may not be associated with formal leadership positions.

2. The *club within a club scenario*, in which there is significant overlap between the club’s organisational structure and the structure of networks of criminal activity. For example, in the case of drug trafficking, the relations and interactions between members are not dictated by the organisational structure of the club or chapter. Authority is derived not from one’s formal position in the hierarchy but from network positioning. This has been observed in other gang research (eg Decker, Bynum & Weisel 1998; Densley 2012).

3. The club is a *criminal organisation* and is organised and structured for the purpose of committing crimes, including illicit governance crimes in which the group performs the role of a quasi-governmental authority, setting and enforcing rules, and taxing legal and illegal business activities in their territory.

We note that these three categories are ideal types and that in the real world there may be some overlap between them. Nonetheless, based on the scant research available and reviewed in this paper, it appears that scenarios (1) and (2) receive some empirical support. Nonetheless, based on our review, we conclude that questions about organisational structure and criminal activities are best addressed at lower levels of aggregation such as clubs and chapters rather than applied to OMCGs more broadly. As Blokland, Soudijn and van der Leest (2017) demonstrated, the relationship between organisation structure (eg formal hierarchy) and the extent to which they engage in criminal activities may differ from one club to another. Future research should address these questions at lower levels of aggregation and should employ SNA to examine and contrast the formal and informal associational structures within OMCG clubs and chapters.
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