Chapter 6

When Home Delivery Trumps a Shady Warehouse Deal. An Exploratory Study of Belgian Cryptomarket Buyers' Profile and Their Motives to Buy Online

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Abstract

Although we have achieved a greater understanding of cryptomarket specifics, evidence on the consumer side of cryptomarkets is still needed – not only regarding the role of cryptomarkets on individual drug-using careers but also on the motives for buying illicit drugs from cryptomarkets. Moreover, research has indicated that national differences exist regarding different variables relating to cryptomarket use and prevalence, as well as to why users are drawn to these markets. In this chapter, the author presents the results of a Belgian case study focusing on drug cryptomarket buyers. Using an online quantitative survey ($N = 99$) and semi-structured interviews ($N = 10$), we gain exploratory insight into the motives of Belgian buyers sourcing illicit drugs from cryptomarkets and how they believe these cryptomarkets affect their drug-using careers. Results indicate that most of the respondents had bought drugs offline before buying them from cryptomarkets and that the frequency of their drug use did not change once cryptomarkets were accessed. Almost 60% of our respondents, however, consumed different drugs or a wider range of drugs following their cryptomarket use. Furthermore, most of the respondents purchased from cryptomarkets for their personal consumption, and some of them also shared their supply with friends, that is, social supply. The alternative drug offer was the principal reason why they were using cryptomarkets, followed by curiosity and the price and the quality of the drugs. Although

Digital Transformations of Illicit Drug Markets: Reconfiguration and Continuity, 73–92

doi:10.1108/978-1-80043-866-820231006

the respondents in this study were well aware of different risks related to market vendors, market administrators, and law enforcement, these risks were considered to be minimal and part of the cryptomarket environment. The results of this case study are informative and highlight areas requiring further research.

Keywords: Drug cryptomarkets; illicit drugs; Belgian buyers; drug acquisition; motivations; risk minimisation

Introduction

Cryptomarkets[1] offer an unprecedented opportunity to monitor trends in drug markets. Evolutions visible in cryptomarkets may expand our knowledge about emerging new substances, the quality of these substances, and distribution strategies. Insights gathered through monitoring and analysis could identify and guide evidence-informed practices for both the demand and the supply sides (Barratt and Aldridge, 2016; Martin, 2023, Chapter 9).

To date, researchers have gained insight into, among others, the profile of cryptomarket consumers and vendors (Van Hout and Bingham, 2013b, 2014), the drugs purchased (Broséus et al., 2016), and the structure of cryptomarkets (Duxbury and Haynie, 2018a). Many of these studies focus on Silk Road 1.0 (Christin, 2013; Aldridge and Décary-Hétu, 2014) and their most well-known successors, such as Silk Road 2.0 and Alphabay (Christin, 2017; Tzanetakis, 2018b). As such, these studies have provided early and general insights into the profile of cryptomarket vendors and buyers (Bancroft, 2023, Chapter 5; Bancroft and Scott Reid, 2016; Barratt et al., 2016; Kowalski, 2019; Van Hout and Bingham, 2013b, 2014). Although we have achieved a greater understanding of cryptomarkets, more detailed insights are required regarding the consumer side of cryptomarkets, including the influence of cryptomarkets on individual drug-using careers but also the motives and rationale for buying drugs from cryptomarkets (EMCDDA and Europol, 2017). Moreover, research has indicated that national differences exist regarding the different variables that relate to cryptomarket use and prevalence, as well as why users are drawn to these markets (Barratt et al., 2014).

Belgian drug policy starts from an integral and integrated approach in which the drug problem is considered a public health matter (Belgische Kamer van Volksvertegenwoordigers en Senaat, 2001). Central in the Belgian drug policy are prevention, treatment, and risk reduction focused on people who use drugs. Repression is seen as a last resort and should target people who are involved in

[1]Following Martin (2014b, p. 356), we define a cryptomarket as an online forum, located in the dark web (see infra), where goods and services are exchanged between parties who use digital encryption to hide their identities.

the production and trafficking of drugs. The Belgian Framework Note on Integral Security (2016–2019) is the first Belgian (drug) policy document that targets the use of new technologies and the Internet to sell drugs and stresses the need to monitor this phenomenon. In-depth scientific evidence on Belgian cryptomarket consumers was, however, lacking. Therefore, in 2019, the first exploratory study[2] on Belgian vendors and buyers active on drug cryptomarkets was conducted (Colman et al., 2020).

In this chapter,[3] we focus on the results of this first Belgian study on cryptomarket buyers, shedding first light on their experiences and motives for using cryptomarkets and how they believe these cryptomarkets affect their drug-using careers. By conducting country-specific research, we might glean further information on national trends and dynamics regarding the demand side, compare it to international findings, and inspire practitioners and policy-makers to draft evidence-informed answers to these new developments.

Methodological Approach

These research questions are answered by using a multimethod approach.

Before starting the data collection process, our research preparation included a passive online presence (Barratt and Maddox, 2016). The two main researchers – one Flemish speaking and one French speaking, with basic knowledge of the cryptomarket environment – initiated their passive presence on different dark web[4] discussion forums and cryptomarkets, as well as on drug-related forums on the clear web,[5] such as Drugsforum.nl, in March 2019. This passive presence offered several benefits. First, it supported us in getting to know the cryptomarket environment. It also provided us with adequate knowledge to be able to do a 'translation' of the logic of the participants into a logic that outsiders would understand (Agar, 2011). Second, our passive presence allowed us to stay up to date with events such as law enforcement interventions or the exit of certain cryptomarkets. Furthermore, during this preparation phase, specific attention was dedicated to ethics and the establishment of a data management plan.[6]

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[2]For more information about this study, see Colman et al. (2020). This study focused on the profile of Belgian vendors by scraping three cryptomarkets – Dream Market, Wall Street Market, and Empire Market – and gaining insight into the profile of Belgian buyers by means of a survey and semi-structured interviews.

[3]Parts of this chapter have been published in Colman et al. (2020).

[4]In this chapter, we define dark web as a small part of the deep web that is intentionally hidden and not accessible through standard web browsers but only through specific software such as the Tor browser.

[5]In this chapter, we define clear web as the visible part of the Internet, accessible through standard web browsers.

[6]Further elaboration of the methodological and ethical issues arising from this research may be found in Colman et al. (2020) or by contacting the author to obtain the full report.

Active data gathering by means of distributing the online survey and conducting the semi-structured interviews started in June 2019. To raise our chances for acceptance on the different online platforms, we followed Van Hout and Bingham (2013b) in requesting permission from gatekeepers (platform moderators or administrators) on both clear web and dark web platforms. We introduced ourselves in private messages to these persons, stating our names, affiliations, and research purpose.

First, an online survey was designed through which data on several quantitative variables (see further) relating to drug-using careers and drug-purchasing behaviour was gathered. Our target population consisted of Belgians who had used cryptomarkets at least once to purchase illicit drugs during the previous 12 months. As such, the following selection criteria were present: (i) adults, having the Belgian nationality or living on Belgian territory, who (ii) bought illicit drugs through cryptomarkets at least once during the previous 12 months. We aimed to reach a diverse population regarding drug-using careers and level of engagement with cryptomarkets, among other variables. As such, a purposive sampling method was used to distribute the survey on a range of online clear web and dark web platforms. This approach was in part inspired by the Global Drug Survey (Winstock et al., 2016). The aim was to gather variables that, first, allowed us to sketch the drug-using career of this specific population. A drug-using career was understood as the development of an individual's drug use, often characterised by the stages of onset, habitual use, treatment/relapse cycle, and recovery (White and Comiskey, 2006). Second, we included questions on demographics (Van Buskirk et al., 2016), variables on prior and present drug use (Degenhardt et al., 2001; Secades-Villa et al., 2015), changes in drug source (Barratt et al., 2016), and cryptomarket purchasers' social environment (Moyle et al., 2019). Additionally, contextual variables were identified, such as information sources used by respondents, the prevalence of social or commercial supply, the perceived impact of market disruptions, means of payment, or reasons for vendor selection (Bancroft and Scott Reid, 2016; Moyle et al., 2019; Van Hout and Bingham, 2013b). The online survey, available in English, Dutch and French, was distributed through (i) platforms that were frequented by drug users that were active online, such as reddit/darknet, Dread, Envoy, and The Hub, and (ii) platforms that were frequented by Belgians, such as Drugsforum.nl and Psychoactif.fr. Platforms and subforums in both categories were to be found both on the clear web and the dark web. In the later stage, the survey was distributed through several offline channels in Belgium, that is, by prevention/health/harm reduction services such as Modus Vivendi, Safe 'n Sound, and Quality Nights. A total of 99 responses were received between 17 July 2019 and 11 October 2019. During data collection, the cryptomarket environment experienced some instability. Dream Market ceased its operations at the end of March 2019. The announcement coincided with a statement from EUROPOL that cryptomarket vendors had been arrested and accounts were shut down as part of an international police operation. Less than two months later, Wall Street Market also ceased operation on 3 May 2019 after an exit scam and a law enforcement takedown.

The data were analysed using the statistical software environment R.

Second, semi-structured interviews were conducted to gain more detailed insights into drug use and cryptomarket purchasing behaviour. While the survey provided some initial quantitative insights into the Belgian consumer side, the semi-structured interviews aimed to gain insight into their experiences, rationales, and motivations to buy from cryptomarkets. We aimed to reach the same target population, that is, Belgian citizens or people living in Belgium and who had used cryptomarkets at least once to purchase illicit drugs during the previous 12 months. The interview respondents were principally reached through the online survey. At the end of the survey, information was included about the content and organisation of the semi-structured interviews and asked if respondents were interested in participating. If so, they were asked to send a message via Wickr: 'AlleyToTheWeb' or an email to the principal researcher. Additionally, the call for respondents was distributed through offline channels (the same prevention/health/harm reduction services as mentioned above) by sharing flyers and posters about the study. As such, filling out the survey was not a necessary condition for participation in the semi-structured interviews, nor were the results of the survey used to start or understand the semi-structured interviews.

Ten persons were interviewed. Seven out of the ten respondents learned about the call for participants through the survey in which they had participated, while three respondents were informed about it through other means (either by word of mouth or offline advertisement). Based on the preferences of the interviewees, three interviews took place through Wickr Me voice call, one interview was done through Jabber (an alternative secure instant messaging application), another one through Discord (an instant messaging and digital distribution platform), and the remaining five were conducted face to face. Seven interviews were done in French; the other three were in Dutch.[7] The topic list was based on, among others, previous qualitative studies studying drug use and online drug-purchasing behaviour, experiences, and motivations (see Bancroft and Scott Reid, 2016; Felstead, 2018; Masson and Bancroft, 2018; Van Buskirk et al., 2016; Van Hout and Bingham, 2013b, 2014). The interviews lasted between 50 and 150 minutes. All of the interviews were conducted between 18 September and 14 November 2019.

The interviews were subsequently transcribed. Coding of the transcripts was done using NVivo software. To do so, a codebook was developed based on the previously identified topics informed by the literature. A first round of analysis resulted in 44 different 'nodes', that is, coded themes encountered in the transcripts. These 44 nodes were categorised under a total of eight higher level nodes: (i) demographics and description of participants; (ii) self-presentation of drug use; (iii) interest in drug policy; (iv) activity on the dark web outside of cryptomarkets; (v) drug use (14 sub-nodes); (vi) drug-purchasing practices (23 sub-nodes); (vii) sources of information on use and harm reduction; and (viii) beliefs about the future of cryptomarkets.

[7]The quotations used in this chapter were translated from Dutch or French to English.

Results

Our respondents in both the online survey ($N = 99$) and the semi-structured interviews ($N = 10$) consisted of only persons who identified themselves as males. They were mostly in their 20s or 30s and were highly educated and full-time employed. All respondents identified themselves as adults who are Belgian or who are living in Belgium and who had used cryptomarkets at least once to purchase illicit drugs during the previous 12 months.

Purchasing From Cryptomarkets and the Drug-using Career

In the survey and the semi-structured interviews, we asked the respondents how they believed cryptomarkets affected their drug-using careers, including onset, prevalence, frequency, and range of drugs they used.

The median onset age of the 53 survey respondents who identified their onset age was 17 years. Of the 51 respondents who identified their onset illicit drug, 42 (82%) answered 'cannabis'.

Forty-one survey respondents responded to the question whether they had ever bought illicit drugs offline before purchasing online: only 5% of the respondents stated that they had never bought offline before purchasing online. Of the 45 respondents answering the question whether they had recently bought offline, 87% answered positively, indicating that cryptomarkets are not their single source of supply. Respondents indicated in an additional question that of the total amount of money they spent on illicit drugs bought online and offline in the previous 12 months, approximately 55% went to cryptomarket vendors. Of the 45 respondents describing their online purchase behaviour, 62% indicated that they had never bought any illicit drugs over the clear web.

Lifetime experience[8] with illicit drugs ranged from cannabis to opioids and synthetic stimulants. The use of cannabis stood out from the other illicit drug categories. More than 90% of the 67 respondents who answered this survey question indicated that they had used cannabis at least once. More than 50% of the respondents indicated that they had used it on a weekly basis or more often. The categories that follow – XTC, LSD, psychedelic mushrooms, cocaine, amphetamine, and ketamine – were used at least once by 50–70% of our survey respondents, but on a less intensive use pattern – around 10–15% of our survey respondents used these products on a weekly basis.

Recent experience with illicit drug use,[9] that is, any use during the previous 12 months prior to taking the survey, showed similar results. Again, cannabis was a decisive number one: 80% of the 53 respondents who answered this question had used cannabis during the previous 12 months, and more than 50% of our respondents used it on a weekly basis or more often. Fifty to 70% of our respondents had

[8]For these questions, no reference was made to the source of the illicit drug – all use is included, whether purchased through cryptomarkets or elsewhere.

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used XTC, coke, and LSD during the previous 12 months, but roughly 10% of them used these drugs on a weekly basis or more often. It is interesting to note that although only around 12% of our respondents had used opioids in the previous 12 months, about 10% of them used them several times a week.

When inquiring about an increase in illicit drug use frequency (Table 6.1), over two-thirds of the 38 respondents who responded to the question stated that there had not been an increase in their drug use frequency. Of the 39 respondents who described the range of substances they used, 59% indicated that the range of substances they had consumed since their first access to cryptomarkets had changed compared to what they had bought offline or on the clear web prior to their first cryptomarket purchase.

Furthermore, we asked the survey respondents to specify what new illicit drugs they had tried since their first cryptomarket access (Table 6.2). First of all, the 20 respondents who had filled in this question had used, on average, 2.65 new illicit substances since accessing cryptomarkets. The principal categories were LSD, 2C-type, ketamine, and cocaine. Around half of the respondents had newly accessed two of these drugs, that is, LSD and 2C-types, for the first time when they bought them from cryptomarkets.

During the semi-structured interviews, all interviewees indicated that they had started using drugs by obtaining their drugs outside cryptomarkets. This could be offline or (sometimes) on the clear web. Most of our interviewees considered the option of cryptomarkets only after they had a certain demand that they wanted to fulfil, that is, either they had already tried a substance and wanted easy access or they had read about it and wanted to try it but were unable to purchase it in the offline world. In many cases, our interviewees had already made a certain effort to find their desired drug in the offline world through, for example, their social network.

Furthermore, many of our interviewees indicated that they started experimenting and trying out other drugs more than before once they started buying from cryptomarkets. This link between cryptomarket access and the use of new drugs should not be too surprising given that most of the interviewees also indicated that the alternative drug offer was exactly the reason why they started using cryptomarkets in the first place (see below). That is interviewees stated that they moved to cryptomarkets because they wanted to consume substances like LSD, ketamine, or 2C-b, which were difficult to obtain through traditional channels.

Table 6.1. Self-assessment Changes in Drug Use.

Self-assessment Changes in Drug Use		
	No. of Responses	**%**
Increases drug use since cryptomarket use (N = 38)		
Yes	12	32
No	26	68
Different drugs used than before cryptomarket use (N=39)		
Yes	23	59
No	16	41

Table 6.2. New Drugs Used Since First Time Purchase From Cryptomarkets.

New Drugs Used Since First Time on Cryptomarkets (N = 20)		
	No. of Responses	**%**
LSD	12	57
2C-x	10	48
Ketamine	5	24
Cocaine	4	19
Shrooms	3	14
MDMA/XTC	3	14
DMT	3	14
Amphetamine	3	14
Mescaline	2	10
RCs/NPS	2	10
Opioids	2	10
GHB	2	10
Benzo's	2	10
Ritalin	1	5

Multiple responses allowed.

Interviewees' offline channels were mostly used for cannabis and, to some extent, for other classic illicit drugs like ecstasy, cocaine, or amphetamines:

> It hasn't increased in terms of frequency, but I must say that it has changed when it comes to the type of substances. (Mathieu,[10] 2 years of cryptomarket experience)

Others state that initial offline use of a specific drug, combined with relatively easy access through cryptomarkets, seems to have led to accessing the drug again through cryptomarkets:

> The dark net has never drawn me to consume a different drug, but in the beginning, I would for example, only buy MDMA (online), and at that time I did not yet use cocaine. One day, friends pushed me and insisted (to use cocaine), and I gave in and I consumed cocaine for the first time. Afterwards I have been buying cocaine from the dark web because it is easier and less… maybe not cheaper but easier. (Simon, 2 years of cryptomarket experience)

[10]All names are changed to protect the identity of the interviewees.

Reasons for Belgian Buyers to Purchase From Cryptomarkets

Forty-eight survey respondents responded to the question why they started buying from cryptomarkets (Table 6.3). The answers reflected motivations ranging from the offer (60%), curiosity (52%), and the price of the drugs (52%). In contrast, perceived anonymity from law enforcement was only a prime consideration for 31% of respondents, and only 23% mentioned perceived anonymity from others.

During the semi-structured interviews, interviewees clarified that their initial cryptomarket use was motivated by the possibility to buy substances that are difficult to find outside of cryptomarkets. They emphasised that they continued buying from cryptomarkets due to this large selection but also because of the perceived high drug quality (mostly expressed in terms of drug purity) and the competitive prices (particularly for MDMA/ecstasy). They also indicated a preference for ordering from vendors located in Belgium or neighbouring countries due to the perceived risk of not receiving the order when the parcel has to pass many borders:

> Let's say you want to buy 2C-b: good luck finding it on the streets, and good luck that it is going to be (good)… That the guy doesn't sell you something totally different. (Axel, 3 years of cryptomarket experience)

> When buying ecstasy pills there is already a clear difference between buying a pill at a party and buying it in advance online […] But there are products for which the margins are even bigger. I have bought MDMA in crystal form offline several times, where the price was usually around €30 to €40. But on the dark web, the price is between €2 and €10. (Jérôme, 1 year of cryptomarket experience)

Table 6.3. Reasons to Start Buying From Cryptomarkets.

Reason to Start Using Cryptomarkets (N = 48)		
	No. of Responses	**%**
The offer	29	60
Curiosity	25	52
The price	25	52
Ease of use	20	42
Review system	18	38
Service offered	16	33
Anonymity from LE	15	31
Anonymity from others	11	23
Other	6	13

Multiple responses allowed.

Survey respondents generally evaluated their cryptomarket purchases more positively than their offline ones, although they did not seem negative about their offline buys. Of the 40 respondents who answered this question, 13% evaluated their offline purchases as mostly negative to very negative; 51% evaluated their offline drug purchases as mostly positive to very positive, while 9% evaluated their cryptomarket purchases mostly negative to very negative and 84% evaluated their cryptomarket drug purchases as mostly positive to very positive.

The Perceived Influence of Market Disruptions on Buying Behaviour

The survey also included questions on the perceived influence of market disruptions, specifically regarding the disruptions that occurred between March and May 2019, as discussed in the 'Method' section (see supra). Survey respondents were asked how these events had influenced their behaviour so far and what influence it might have on their future behaviour.

Table 6.4 summarises the perceived influence the market shocks had on participants' past illicit drug use behaviour. The overwhelming majority of the 29 respondents who answered this question indicated that they continued to use drugs despite these recent market shocks.

Table 6.5 suggests, however, that the market shocks did have some influence on their purchase behaviour. Most of the 29 respondents who answered this survey question did not transfer to alternative, non-cryptomarket channels after these events: 62% of the respondents continued to buy from cryptomarkets; the other 38% had not bought any illicit drugs at all since the market disruptions (14%) or bought through non-cryptomarket platforms offline or on the clear web (24%).

In the semi-structured interviews, the interviewees clarified that they generally feel safe when purchasing their substances from cryptomarkets. Reading about

Table 6.4. Perceived Influence of Market Shock on Drug Use.

Effect of Market Shock on Drug Use (N = 29)		
	No. of Responses	**%**
Same drugs, same frequency	23	79
Different drugs, higher frequency	2	7
Different drugs, lower frequency	1	3
Same drugs, lower frequency	1	3
Same drugs, higher frequency	1	3
Different drugs, same frequency	1	3
No drugs since	0	0

Table 6.5. Perceived Influence of Market Shock on Drug Purchase.

Effect of Shock on Drug Purchase (N = 29)		
	No. of Responses	**%**
Different cryptomarket	10	34
Same cryptomarket	8	28
No purchase whatsoever	4	14
Same offline dealer	4	14
Same clear web platform	1	3
New offline dealer	1	3
New clear web platform	1	3

the purchasing process and experiences of other buyers through different platforms, most prominently Reddit and Dread, seemed to help them feel secure from the outset.

Nonetheless, the interviewees cited several risks that may occur while buying from cryptomarkets, although these were perceived as rather small. The perceived risks identified by our interviewees could be classified into three categories: risks from market vendors, risks from market administrators, and risks from law enforcement.

First, they stressed the risk of engaging with a 'malicious vendor', who might provide a different substance than expected, blackmail (doxing) the buyer by threatening to expose personal details online or act fraudulently by receiving the payment but not sending the product. Despite the escrow system that is used to prevent this last threat, one respondent noted that disputes are more likely to be resolved in favour of the vendor.

Second, the interviewees considered the market administrators as another risk factor. All interviewees were aware of so-called exit scams by market administrators in which the administrator shuts down the market and confiscates users' money that is pending for payment. This risk of exit scams was considered a realistic part of the online buying process:

> About exit scams – well, I'd say it's the risk one runs, as it is illegal so what can you do? If they can make a bit more dough to the detriment of others, why not? I don't think it is really an environment where there is much moral consideration, so, well … I think the whole game is worth it … these are the risks. (Jérôme, 1 year of cryptomarket experience)

Third, regarding risks posed by law enforcement, all interviewees stressed that they considered this risk as low. Specifically, they felt that police forces in Belgium do not prioritise this type of offense. They also believed that Belgian law

enforcement is not sufficiently resourced to effectively follow up on smaller drug offenses,[11] even if their priorities had been different:

> I think that law enforcement won't be wasting their time on a kid like me, a kid spending €50 a month on drugs. I think the infrastructure they would need to capture someone like me would be counter-productive and completely inefficient. (Axel, 3 years of cryptomarket experience)

> You can never be sure; it's possible, but I order such small quantities and for personal use that Belgian police, who are already understaffed, that they won't be dealing with a minor player like me. If they do [catch me], well, then let them do their thing and I'll undergo my sentence even though I don't agree. (Jef, 4 years of cryptomarket experience)

When discussing aspects of security, several interviewees stated that they were only basically up to date regarding the latest dark web security developments. Others did know about the possible range of measures to hide their actions and transactions, yet they chose to implement only minimal security features. All participants were aware that they could do more than they were actually doing to maximise their security:

> Ah, well, it's very basic. I exchange money to cryptocurrency, and that's pretty much it. I truly should [do more], really, but …. You know, people have often told me to [improve security measures], but I don't even use a VPN or anything. (Mathieu, 2 years of cryptomarket experience)

Personal Use or (Social) Supply of Drugs

Of the 38 survey respondents who identified for whom they buy drugs, all but one indicated having bought at least for themselves (Table 6.6). Around half of the respondents ($N = 21$) indicated that they also buy for their friends or family.

Thirty-seven survey respondents identified how much money they spent on cryptomarkets. The median amount spent on cryptomarket drug sales by the survey respondents is €250 to €500 over the previous 12 months. Most respondents (30%) had spent between €100 and €250 on cryptomarkets over the previous 12 months. However, 21% of the respondents had spent more than €1,000 in the previous 12 months – 16% between €1,000 and €5,000 and 5% over €5,000.

[11] All interviewees indicated that they buy from cryptomarkets for personal use and that they often share it with friends (see infra).

Table 6.6. Beneficiaries of Purchases.

Purchases: For Whom (N = 38)		
	No. of Responses	**%**
Myself	37	97
Friends	20	53
Clients	4	11
Family	1	3
Other	1	3

Multiple responses allowed.

Combining the drug beneficiaries and the money spent, we found out that from the four respondents who had (also) purchased drugs for resale to clients – two respondents had spent between €1,000 and €5,000; one respondent had spent over €5,000 during the previous 12 months.

Of the 42 respondents answering the question on the frequency of their cryptomarket purchases, most of them (45%) indicated that they had bought only once or a few times, whereas 31% had made a purchase every two to three months and 7% had bought on a weekly basis or more often during the previous 12 months.

In the semi-structured interviews, all interviewees clarified that they principally buy from cryptomarkets for personal use and that they often share the drugs they purchased with friends (i.e. social supply; Coomber et al., 2016). Most of these friends did not know that the drugs were bought from cryptomarkets, as sharing this information was not considered important for the respondents. When asked whether they had thought about moving to commercial supply, several respondents replied that they had thought about it. Substances such as ecstasy were deemed to be much more financially rewarding, that is, an interesting price-quality ratio, when sourced on cryptomarkets. Yet for many there was a clearly defined red line between sharing with friends and selling for commercial reasons:

> It's not my thing, it's really not my thing …. To me it's a bad idea because it's also about meeting people who are perhaps addicted, who are really dependent, and you never know how someone who is very dependent, how they might react. So no, that's always been a no go. (Simon, 2 years of cryptomarket experience)

One interviewee shared this idea and also explained his reason for sharing his supply with friends. He stated that on certain nights out, his friends would be using anyway, and if he did not provide them with drugs, they might buy 'some unknown, expensive white powder, somewhere in a shady warehouse' (Maxime, 10 months of cryptomarket experience).

Discussion

Drug-using Careers of Belgian Buyers on Cryptomarkets: Looking for a Different Menu

Aldridge et al. (2017) indicate that cryptomarkets might influence drug careers in several ways: customers may gain access to drugs not otherwise available to them locally, cryptomarkets may make drugs available to those who would otherwise not have accessed them through offline markets, or cryptomarket customers may intensify their use.

The Belgian case study illustrates that 95% of the survey respondents had bought drugs offline before buying from cryptomarkets. Additionally, the semi-structured interviews revealed that all respondents considered the option of cryptomarkets only after they had a certain demand that they wanted to fulfil. That is, either they had already tried a substance and wanted easy access through cryptomarkets or they were interested in trying out a substance but were unable to purchase it through traditional channels. This finding relates to other research results (e.g. Winstock et al., 2019) stating that 95% of buyers have consumed drugs prior to turning to cryptomarkets and the fact that most cryptomarket customers have consulted offline markets before turning to cryptomarkets (Bancroft and Scott Reid, 2016; Barratt et al., 2016; Kruithof et al., 2016). For a small subgroup, however, the use of cryptomarkets marked the onset of drug use (Aldridge et al., 2017; Winstock et al., 2019).

Moreover, it seems that for most of the Belgian respondents, the frequency of drug use did not change once cryptomarkets were accessed. Based on our exploratory case study, we could, however, state that cryptomarkets may function to increase the range of drugs used at an individual level. More than half of the respondents were led to taking new, different drugs or a wider range of substances concurrent to their cryptomarket use. For some, cryptomarkets' easy access might have acted as a magnifying element to use a certain substance they had previously accessed offline. However, around or over half of the respondents accessed these products – in particular LSD and 2C-types – for the first time when they bought them from cryptomarkets. The survey indicates that respondents use on average 2.65 new drugs since discovering cryptomarkets. The principal drug categories are LSD, 2C-types, and, to a lesser extent, ketamine and cocaine.

Research on how cryptomarkets affect drug trajectories shows similar results. Based on 17 interviews with illicit drug buyers on Silk Road, Barratt et al. (2016) reported that respondents increased their use and tried new drugs in their first months using cryptomarkets, described as 'the honeymoon period'. However, due to the high availability, the need for drug hoarding and buying larger quantities decreased after some time. In the 2019 edition of the Global Drug Survey (Winstock et al., 2019), 31.1% reported accessing a wider range of drugs than they previously had and 10.1% reported having consumed a different class of drugs than previously. Similarly, the study by Barratt et al. (2016) revealed that a 'greater range' was key in their decisions to source drugs from cryptomarkets.

In their narrative review of literature connected to drug cryptomarkets, Aldridge et al. (2017), therefore, conclude that cryptomarkets are likely to provide a new mechanism for the diffusion of specific drugs into new locales in which they were previously unavailable.

Belgian Buyers: Buying for Personal Consumption, But Willing to Share

First of all, it became clear that for most of the Belgian survey respondents, cryptomarket purchases were not their single source of supply as 87% of them had recently also bought drugs offline. From the total amount of money spent to buy drugs either online or offline, approximately 55% was attributed to cryptomarket purchases. The majority of their cryptomarket transactions during the previous 12 months fell within the lower price ranges, that is, between €100 and €250. The median amount spent during the previous 12 months on cryptomarket drug transactions by the Belgian survey respondents is €250 to €500. However, 21% of the respondents had spent more than €1,000 in the previous 12 months. Based only on the price of a transaction, it is not possible to determine whether the purchase is intended for personal consumption only or for resale. Some researchers (Aldridge and Décary-Hétu, 2016) indicate that the higher the price of a drug transaction, the more likely it is that these transactions are intended for offline sales, that is, offline drug dealers buying stock or commercial social supply. Transactions above US$1,000 (around €1,000) are often categorised as wholesale transactions (Aldridge and Décary-Hétu, 2016). Therefore, an additional question aimed to discover more about the purpose of their sales. Ninety-seven percent of the survey respondents (also) bought for their own use. More than half of the survey respondents indicated they also bought for friends and 11% for clients. Fifty percent of the survey respondents who had indicated they also buy for clients had spent between €1,000 and €5,000 in the previous 12 months; one of them had spent over €5,000 in the previous 12 months. Furthermore, it is also important to mention that only 24% of the survey respondents indicated that they had bought on at least a monthly basis during the previous 12 months; 45% of the respondents indicated that they had only purchased a few times from cryptomarkets in the previous 12 months.

During the semi-structured interviews, we gained more detailed insights into the purpose of their sales. Nine out of ten Belgian interviewees indicated that they are reluctant to transition to commercial supply. They indicated that they often share their supply with friends, primarily when going out. By doing so, the interviewees believed that they provide their friends with drugs in a (perceived) safer way and a less risky environment than acquiring through offline, traditional channels. The friends they shared their drugs with are mostly not aware of their source of supply, even though the respondents were not actively hiding this information. Only one respondent shared his cryptomarket experiences with friends, although his friends did not seem to be interested in this information.

As such, based on our exploratory case study, we emphasise that most of our respondents purchase from cryptomarkets for their personal consumption, and some of them share their supply with friends, that is, social supply.

These results are consistent with findings from international research, although some authors (Aldridge and Décary-Hétu, 2014) stress the potential of cryptomarkets to stimulate innovation and change in drug markets, for example, how retail and middle levels are organised. Several studies suggest that the majority of cryptomarket purchases are for smaller amounts, likely intended for personal consumption or social supply (Christin, 2013; Demant et al., 2018b). Higher drug transaction prices could indicate that customers buy for a group to make up for the time to purchase the product (i.e. buying cryptocurrencies, browsing online for a seller, arranging the sale) and handle the risk of interception by customs by buying a larger amount of drugs at once instead of smaller amounts on multiple occasions (Demant et al., 2018b). However, the most revenue is generated from larger quantities. Based on a quantitative study of Silk Road 1.0, Christin (2013) found that most purchases involved small amounts, suggesting personal use rather than drug dealers sourcing stock, although Aldridge and Décary-Hétu (2014) indicated that many Silk Road customers were also drug dealers and that Silk Road should have been characterised as 'the very location for the middle level of the drug market […] as a virtual broker, connecting upper, middle and retail level sellers' (Aldridge and Décary-Hétu, 2014, p. 27). Demant et al. (2018b), who have crawled Agora Marketplace and Silk Road 2.0, found that the majority of sales on Silk Road 2.0 and Agora fell within lower price ranges, although a significant part of the revenue occurred in price ranges that might suggest business-to-business dealing.

Motivation to Buy From Cryptomarkets: The Offer Is Key

Following the Belgian survey respondents, the principal reasons to start buying from cryptomarkets were because of the broad range of offerings (60%), followed by curiosity (52%), and the price (52%) of the drugs. In contrast, anonymity from law enforcement was only a prime consideration for 31% of respondents, and anonymity from others was only 23%. Security concerns, in other words, did not seem to be a principal driver for respondents to start buying drugs on cryptomarkets.

During the semi-structured interviews, more information was obtained regarding their motivation to buy from cryptomarkets. The interviewees stated that they started to use cryptomarkets because they wanted to use specific types of drugs that were hard to find through traditional channels (including new psychoactive substances). The interviewees additionally mentioned the reasons they continued their cryptomarket purchases – namely, high drug quality (mostly expressed in terms of drug purity), the competitive prices (particularly for MDMA/ecstasy), and the large offer of different drugs that are difficult to find elsewhere.

International research indicates that several benefits make people turn to cryptomarkets. Customers can compare information about the quality and the type of drugs, prices, and vendors thanks to the transparency of cryptomarkets (Tzanetakis, 2018b). Following international scholarship, the leading reasons for

people buying from cryptomarkets are the price (Ormsby, 2016), product quality (Kowalski et al., 2019), and – as mentioned earlier – the wide range of products (Barratt et al., 2014; Van Hout and Bingham, 2013b), including the availability of their drug of choice (Ormsby, 2016). The study by Barratt et al. (2016) also revealed that a 'greater range' was key in their decisions to source drugs from cryptomarkets. Participants from samples across Australia, the UK, and the USA indicated the wide range of products as their main reason for purchasing drugs on cryptomarkets, among other motivations such as the convenience of purchasing drugs online and the quality of the products.

It is, however, important to keep in mind that 'product quality' could entail multiple meanings such as chemical purity, potency, or predictability of effect and could be studied in different ways, that is, by interviewing buyers assessing the quality of the drug they bought online or by actually testing online samples (Bancroft and Scott Reid, 2016). Similar to the respondents in our study, all participants in the study by Bancroft and Scott Reid (2016) assessed the product quality on cryptomarkets as reliably good. Due to some specifics of the cryptomarket environment (e.g. the product description, the review system, and the payment method, i.e., escrow), cryptomarket vendors might be more accountable to their customers and more likely to sell 'as-advertised' substances rather than substitutes or substances with lower drug purity (Aldridge and Décary-Hétu, 2014). A one-year pilot project (2014–2015) testing 219 samples from drugs purchased from cryptomarkets revealed that the results of the analysis matched the advertised substance in 91.3% of the samples (Caudevilla et al., 2016). In addition, purity levels (i.e. the proportion of the active principle present in a sample) were high. Furthermore, no adulterants were found in MDMA and LSD samples.

Moreover, all interviewees indicated that they preferred ordering from vendors located in Belgium or neighbouring countries. This result confirms the increased preference for regional shipments rather than global ones, as described in the literature (Tzanetakis, 2018b). Possible explanations are risk aversion strategies and the fact that cryptomarkets are capable of satisfying local demand. In our study, this preference was particularly related to the perceived risk of not receiving the order when the parcel has to pass many international borders.

A Rather Careless Attitude Towards Risks Related to Cryptomarket Use

The Belgian case study indicated the respondents are well aware of the diverse range of risks, yet they perceived the risk as low. Generally speaking, they feel safe when buying from cryptomarkets. The risks identified by our respondents could be classified in three categories: risks from market vendors, risks from market administrators, and risks from law enforcement.

Similar to the results of other studies, the main risk, according to our respondents, was losing money due to scams, yet this was perceived as a calculated risk and a price they might pay for the convenience of ordering online. Market disruptions (such as exit scams or closedowns due to law enforcement actions) did not seem to negatively impact the Belgian respondents, as most did not transfer to

non-cryptomarket channels but continued to buy from cryptomarkets. Threats from law enforcement were seen as minimal by our respondents, who mainly ordered smaller amounts. Specifically, they assumed that police forces in Belgium do not prioritise the investigation and prosecution of smaller drug offences. They also stated that Belgian law enforcement actors are not sufficiently resourced to effectively tackle this phenomenon. Indeed, this lack of specialised knowledge, resources, and investigation capacities to respond to new cybercrime-related offences has been highlighted already in Belgian research, including by law enforcement actors themselves (Colman et al., 2018).

Although we hypothesised that operational security would be a central focus for our Belgian cryptomarket (Gehl, 2018; Van Hout and Bingham, 2013b), most of the respondents did not focus on security aspects and only took advantage of basic security features offered by the platform itself (i.e. the use of Tor, encrypted messaging, paying in cryptocurrencies). This observed minimal use of security-enhancing features by most of our respondents is not surprising given the results indicated above. After all, research has suggested that differences might exist in the focus on operational security relating to the specifics of a national drug policy and the (perceived) effectiveness of law enforcement in tackling this phenomenon (Barratt et al., 2014).

Thanks to their potential to distribute illicit drugs beyond vendors' physical environment, cryptomarkets could provide a (relatively) anonymous and (perceived) safe platform for illicit drug trades in comparison to offline trade (Aldridge et al., 2017; Tzanetakis, 2015). Although cryptomarkets have the potential to minimise risks and harms, different and other types of risks could occur on cryptomarkets compared to offline drug markets, such as loss of money, (exit) scams, seizure by law enforcement actors, or other types of violence, including doxing (Barratt et al., 2016). Yet, research indicates that there is a (perceived) low level of risk associated with illicit drug trade on cryptomarkets (Barratt et al., 2016). Aldridge et al. (2017) indicated that cryptomarket buyers reported fewer threats to personal safety and less violence than reported in connection with offline sourcing through known dealers, strangers, and even friends. Research conducted by Barratt et al. (2016) showed that a high number of participants reported more threats to their personal safety when they obtained drugs through alternative drug sources such as in-person dealers or open markets. The study also showed that respondents experience higher levels of physical violence while obtaining drugs through offline sources. In addition, market disruptions do not seem to have a significant impact on the perceived level of risk or buying behaviour, which might be explained by the ability of these markets to adapt and refine their operations (payment methods, delivery options, and security systems).

Limitations

The chosen study design entailed some limitations. First, we want to stress the explorative nature of the study, and the online survey in particular. The participants had the choice whether to reply to a certain question or not. As a result, the number of respondents differed by question. Out of the 99 surveys received,

approximately 40 surveys were complete. When referring to the survey, the number of respondents who answered a certain question was mentioned in the text.

Second, the total sample (of both the online survey and the semi-structured interviews) is biased towards respondents identifying themselves as males, making gender-based analyses impossible. Most studies on drug cryptomarkets start from an all/mostly male sample, identifying the cryptomarket environment as being a male-dominated environment (Barratt et al., 2016). As discussed by Fleetwood et al. (2020), the experiences of female buyers and the gender perspective are sometimes absent from these publications, which may lead to unsupported beliefs regarding gender and cryptomarket activities (see Fleetwood and Chatwin, 2023, Chapter 8). Even though most buyers (and vendors) on drug cryptomarkets are men, this study failed to involve women and could have included specific strategies to attract them, such as specifically addressing women in our recruitment process, that is, including a statement in our flyers, posters, and interactions with online/offline gatekeepers that we are particularly interested in including female voices in our research.

Third, the participants' drug-using careers cannot be compared sufficiently to any statistics of drug use in the overall Belgian population. For one, it is uncertain to what degree the sample represents all Belgian cryptomarket users. While there is evidence that suggests purposive sampling surveys can give an approximation of the results achieved by standard household surveys (Barratt et al., 2017), and research is available on drug use in Belgian society (Gisle, 2019; EMCDDA, 2018), there is no detailed information on the degree of cryptomarket use within wider Belgian society. Without this connecting parameter, no detailed comparison can be made. Despite these limitations, the results are informative and highlight areas requiring further monitoring.

Conclusion

This chapter focused on describing the main findings on the profile and motivation of Belgian cryptomarket buyers. In general, the Belgian results mostly correspond to international findings on cryptomarket buyers and reveal several overarching patterns.

First, as demonstrated by international research, the use of cryptomarkets did not mark the onset of drug use for most of the Belgian respondents, as most of them had used drugs before purchasing on drug cryptomarkets. In addition, the frequency of drug use did not change once cryptomarkets were accessed. Similar to international findings, the range of drugs used did change at an individual level, however. More than half of the Belgian respondents took new, different drugs or a wider range of substances following their use of cryptomarkets. This is not surprising given the fact that the alternative drug offer is the principal reason why they are using cryptomarkets in the first place. However, it remains crucial to invest in (longitudinal) multimethod studies to gain a comprehensive view of this phenomenon. While these cryptomarkets continue to grow, we need more longitudinal research with substantial follow-up periods to adequately understand the influence of cryptomarkets on drug-using careers.

Second, the results indicate that most of our Belgian respondents purchase from cryptomarkets for their personal consumption, and some of them share their supply with friends. These results are also consistent with international research, although some debate exists concerning cryptomarkets as a business-to-consumer model rather than a business-to-business model. To date, research generally assumes that business-to-business distribution generates most of the revenues, although most of the transactions could be linked to business-to-consumer distributions, including social supply. More research is needed to unravel how cryptomarkets relate to and impact the different levels of the (offline) drug market, that is, production, wholesale, middle level, and retail.

Third, the results indicate that our respondents feel safe buying from cryptomarkets. The respondents indicate that they are aware of the diverse internal and external risks, though they perceive the risks as low. While other research indicates that cryptomarket users generally focus on operational security, our research indicates that the Belgian respondents follow only some basic security rules inherent to the cryptomarket environment. This relates to the fact that they consider scams by market vendors and administrators as calculated risks and perceive threats from Belgian law enforcement as minimal due to the latter's lack of expertise and resources and the fact that (small) cryptomarket sales are not considered a priority for investigation and prosecution.

This research provided a first glance into the profile of Belgian cryptomarket buyers and their motives to buy online. Although only a small percentage of drug users purchase their drugs from cryptomarkets, illicit drug trade on cryptomarkets is on the rise and has the potential to develop further. As such, it is interesting to monitor and study drug cryptomarkets to enhance our knowledge of drug demand and supply, including emerging new drugs, the quality of drugs, the rationale/motives for buying from cryptomarkets, and distribution strategies, leading to evidence-informed policies and practices. Furthermore, it is advisable to keep investing in country-specific data monitoring and research. After all, it has been stressed that national differences might exist regarding variables relating to cryptomarket use and prevalence, as well as to why users are drawn to these markets, urging tailored national responses.

Acknowledgements

I would like to thank my research partners Antoon Bronselaer, Marie-Sophie Devresse, Tina Van Havere, Geert Slabbekoorn, Sacha Piron and Yoran Timmerman, as well as Federal Science Policy Belgium for funding the cryptomarket research project.