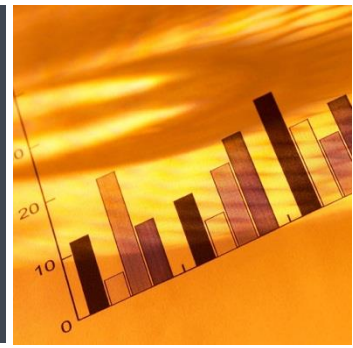


RESEARCH SUMMARY

Patterns in Cannabis Cryptomarkets in Canada in 2018



2019-S004

www.publicsafety.gc.ca

BUILDING A SAFE AND RESILIENT CANADA

This report examines cannabis cryptomarkets in 2018 – the year Canada legalized cannabis. Are there early signs of changes in the supply side?

Background

The internet has evolved into a distribution channel for the illicit sale of drugs. Since 2011, criminal entrepreneurs have taken advantage of anonymous online marketplaces, called cryptomarkets. These platforms facilitate transactions of illegal products and services among many sellers and buyers, leveraging sophisticated technologies, like the Tor network and cryptocurrencies, to ensure anonymity among all participants. Illicit drugs are the most common products sold on cryptomarkets, but other goods and services are also offered, such as stolen financial information and counterfeit products. Cryptomarkets represent a low-risk environment where transactions can take place in a well-organized manner.

Recent research findings suggest that the impact of cryptomarkets may be most apparent at a national level. Cryptomarket drug dealers tend to sell locally to reduce the risks of shipment interceptions and the sale of illicit drugs generally occurs at national or regional levels. This conceptualization of cryptomarkets opens new avenues for research that focuses on a single country at a time. The legalization of cannabis in Canada in October 2018 represents an opportunity to launch this new research agenda as Canada is responsible for a significant share of cannabis transactions. This new regulatory project will provide a preliminary understanding of how such a legislative change has impacted the activities of Canadian drug dealers and drug users on cryptomarkets.

The work plan for this project allows for the analysis of data that were collected until November 2018. Although the full impact of legalization cannot be measured in this timeframe, it should be enough to explore and contemplate the changes to come.

The general aim of this project is to understand the illicit cannabis trade by Canadians on cryptomarkets. More specifically, this project aims to understand the recent trends in the demand and supply side of the illicit cannabis trade by Canadians on cryptomarkets. In doing so, we aim to further our understanding of how cryptomarkets operate, especially as it relates to the relative embeddedness of cannabis vendors into cryptomarkets, relative to other drugs.

Method

The data for this project were first collected using the DATACRYPTO software tool. This tool has been in operation since 2013 and has been used as a source of data for many academic papers and government reports.

DATACRYPTO is a web crawling and scraping software. Basically, the tool connects to a website and automatically downloads the website's content. The tool subsequently extracts specific information from the downloaded content, such as the price of a listing or the description of a seller. This information is then stored in a database management system. To date, the DATACRYPTO software tool has collected data from over 40 cryptomarkets. It has information about hundreds of thousands of cryptomarket vendors, millions of cryptomarket listings and tens of millions of customer feedbacks.

For this report, we used two data collection events that occurred in July 2018 and November 2018. These events represent the general state of cryptomarkets before and after the legalization of cannabis in Canada. The first event collected 162,643 listings from 4,469 vendors on eight cryptomarkets: Apollon, Berlusconi, CGMC, Dream Market, French Deep Web, Flugsvamp, Tochka and Wall Street. The second event

collected 180,917 listings from 4,057 vendors on six cryptomarkets: Apollon, Berlusconi, CGMC, Dream Market, French Deep Web and Tochka. The main source of data comes from Dream Market, which accounts for 78% of all listings and 96% of all revenues on cryptomarkets. To compensate for the missing feedbacks, we decided to present sales and revenues that follow conservative and optimistic assumptions.

Findings

Our results suggest that, over recent months, Canada may have become a more significant actor in the cryptomarket cannabis market. On an annual basis, sales generated by Canadian cannabis vendors appear to have ranged in the hundreds of thousands of dollars a year ago and may have since increased up to the millions of dollars. The volume of cannabis shipped appears to have also increased over the same period, rising from hundreds of kilos to perhaps as much as 2,100 kilos per year in the most optimistic model. This would represent a significant increase that may have pushed Canada from the 8th to 4th position in cryptomarket rankings, according to cannabis revenues. Based on the limited data at hand and the short time frame since cannabis was regulated, **it is not possible to assess whether legalization has had an impact on cryptomarket cannabis sales from Canada.** Our analyses are very preliminary. However, there appears to be a correlation between pre- and post-legalization periods that should be investigated in future studies.

If the increase in sales of cannabis by Canadian vendors is confirmed, it would be mainly related to sales targeting an international market. Our models suggest that the volume of cannabis sold by Canadian vendors to Canadian customers may have decreased following the legalization of cannabis.

Our analyses did not detect significant price changes between July and November 2018. However, there are signs that sales concentration has increased between the two time points. Competition appears to have decreased over time in Canada, with an even more limited number of vendors controlling a sizeable portion of transactions.

Overall, it is important to remember that cryptomarkets represent a new distribution channel for cannabis. However, this distribution channel is small when compared to the offline traditional cannabis market.

Next Steps

We can make the following recommendations for future research, with the general goal of informing research and policy on the relationship between legal and illegal sales of cannabis, both offline and online:

1. Efforts should be made to demonstrate that the legal supply of cannabis is distinct from drugs sold illegally, especially if this supply of cannabis is often shipped online to other countries.
2. Given the sharp rise in shipments by Canadian cryptomarket cannabis dealers, efforts should be made to monitor online cannabis sales relative to other products.
3. The impact of drug policies on cryptomarkets is a new and under-developed area of research. Resources should be invested in the systematic evaluation of these policies on both online and offline markets.

Source

Décary-Héту, D., Paquet-Clouston, M., Bouchard, M., & Morselli, C. (2019). *Patterns in cannabis cryptomarkets in Canada in 2018*. Ottawa, Canada: Public Safety Canada.

For more information on research at the Community Safety and Countering Crime Branch, Public Safety Canada, to get a copy of the full research report, or to be placed on our distribution list, please contact:

Research Division, Public Safety Canada
340 Laurier Avenue West
Ottawa, Ontario
K1A 0P8
PS.CSCCBResearch-RechercheSSCRC.SP@canada.ca

Research Summaries are produced for the Community Safety and Countering Crime Branch, Public Safety Canada. The summary herein reflects interpretations of the report authors' findings and do not necessarily reflect those of the Department of Public Safety Canada.
