Deloitte - ACAMS Toronto Chapter Event
Financial Crime Analysis – Cannabis and evolving technology, techniques to combat risks
October 10th, 2019
Overview of Cannabis Industry
The Global Cannabis Landscape

Canadian companies have an unprecedented opportunity to scale globally

Legend

Countries with some form of legalized cannabis:

- Argentina (M)
- Australia (M)
- Austria (M)
- Belgium (M)
- Bermuda (M)
- Brazil (M)
- Canada (R)
- Chile (M)
- Colombia (M)
- Croatia (M)
- Cyprus (M)
- Czech Republic (M)
- Denmark (M)
- Estonia (M)
- Finland (M)
- France (M)
- Georgia (M)
- Germany (M)
- Greece (M)
- Israel (M)
- Italy (M)
- Jamaica (M)
- Luxembourg (M)
- Macedonia (M)
- Malta (M)
- Mexico (M)
- Netherlands (M)
- Norway (M)
- Peru (M)
- Poland (M)
- Portugal (M)
- Romania (M)
- San Marino (M)
- Slovenia (M)
- South Africa (R)
- South Korea (M)
- Spain (M)
- Sri Lanka (M)
- Switzerland (M)
- Thailand (M)
- Turkey (M)
- United Kingdom (M)
- United States (R)
- Uruguay (M)
- Vanuatu (M)
- Zimbabwe (M)

Note: 1) Grandview Research – Legal Marijuana Market Report
2) Grandview Research – Industrial Hemp Market Report
3) US cannabis laws vary from state to state
4) Legal for recreational possession and cultivation, but not for sale

$146B
Estimated Total Global
Legal Cannabis Market Size
by 2025

34.6%
Estimated CAGR until 2025

$10.6B
Estimated Total Global
Legal Hemp Market Size
by 2025

14.0%
Estimated CAGR until 2025

Canadian companies have an unprecedented opportunity to scale globally.
Who’s Next?

1. GERMANY
   Anticipated Time Frame for Legalization:
   18 months

2. US
   Anticipated Time Frame for Legalization:
   3 Years

3. ITALY
   Anticipated Time Frame for Legalization:
   18 Months

4. MEXICO
   Anticipated Time Frame for Legalization:
   18 Months

5. AUSTRALIA
   Anticipated Time Frame for Legalization:
   3 Years

6. SPAIN
   Anticipated Time Frame for Legalization:
   5+ Years

7. NETHERLANDS
   Anticipated Time Frame for Legalization:
   5+ Years

8. UK
   Anticipated Time Frame for Legalization:
   5+ Years

9. SWITZERLAND
   Anticipated Time Frame for Legalization:
   5+ Years

10. FRANCE
    Anticipated Time Frame for Legalization:
    5+ Years

11. POLAND
    Anticipated Time Frame for Legalization:
    5+ Years

12. BELGIUM
    Anticipated Time Frame for Legalization:
    5+ Years

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Estimated Total Cannabis Market Size in Key Markets\(^1,2\)

- **$99.2B**
  - Recreational
- **$62.4B**
  - Medical
- **$36.8B**
  - Medical

Note: (1) All figures are in USD; (2) Deloitte Analysis 2018

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The Players

The Cannabis ecosystem is a dynamic and diverse group of stakeholders.
Cannabis in Canada

- $518M vs. $1B: Legal vs. illegal spending on cannabis products
- 79% to 66%: 13% decrease in consumer spending on the illicit market from Q4 2018 to Q1 2019
- 60%: Cannabis sales in top three provinces: Alberta, Ontario and Quebec
The Consumer

A post-legalization market is attracting consumers who have been unwilling to try traditional formats

- **The risk taker**
  - Likely age: 18-34
  - Consumption: Multiple times a week
  - Education: High school or college
  - Other traits: More likely to deviate from the letter of the law, More likely to take health and safety risks

- **The current recreational cannabis user**
  - Likely age: 35-54
  - Consumption: Less than once a month
  - Education: University or graduate school
  - Other traits: Less likely to be an online influencer, Less likely to prioritize personal interests

- **The likely cannabis user (following legalization)**
  - Likely age: 18-34
  - Consumption: More likely to deviate from the letter of the law
  - Education: High school or college
  - Other traits: More likely to take health and safety risks

- **The conservative experimenter**
  - Likely age: 35-54
  - Consumption: Less than once a month
  - Education: University or graduate school
  - Other traits: Less likely to be an online influencer, Less likely to prioritize personal interests
Key Consumer Insights

12% Current cannabis users started in the past three months

26% Current users got their cannabis from multiple sources

47% Current users got their cannabis from legal sources vs. 38% from illegal sources

Source: Provincial websites, Cowen and Company
Looking Ahead
What we’ve learned from the US

Shift in product preferences from **edibles towards concentrates** as consumers get more experienced in the recreational cannabis category

Increasing interest and sales of **capsules, topicals and tincture and sub-lingual products**

**Slower beverage category growth** compared to the overall market growth, suggesting a need for **innovative products**
AI-Driven Cannabis Risk Sensing

Through the use of **17 cutting-edge network analysis and social media listening tools** we collect data from more than 650 million public sources covering 80 languages, we are able to **produce a holistic understanding of current threats and emerging risks in the cannabis market**.

- **Workplace**
  - Identify trends related to leadership, culture, workplace conduct, and employee voices

- **Financial**
  - Track indicators of financial risk and opportunity, including financial crime and M&A activity

- **Brand & Reputation**
  - Identify emerging signals that can influence reputation or trust in your brand or leadership

- **Events**
  - Monitor and prepare for critical events to inform response strategies

- **Extended Enterprise**
  - Identify risks related to third parties such as suppliers or partners

- **Regulatory**
  - Identify emerging trends in regulatory discussions

- **Innovation & Competition**
  - Obtain insights on public sentiment around industry innovation and competitors

- **Geopolitical**
  - Monitor trade, conflict, and global markets trends

- **Products & Services**
  - Understand sentiment and online discussions related to product & service, both positive and negative

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**Jason Kenney tweets** that corrupt public officials will exit when he takes office; references AHS board and executive.

**AHS mentioned in stories relating to a story about a former RCMP member charged with fraud and harassment**

**Don Iveson** asks that new government doesn’t “forget” Edmonton, including key AHS services.

**AHS announces opening of redeveloped Stollery PICU**

**AHS issues advisory about confirmed measles case in Edmonton**
FDA announces it is investigating seizure risks linked to electronic cigarettes; discussions about cannabis' health impacts are part of this chatter.

Some campuses, including University of Guelph, announce they will be both tobacco and cannabis smoke-free spaces.

Reddit users discuss reports that cannabis legalization in New York State is at risk because of opposition from teachers, doctors, and police.

**Key findings**

- **6,890 posts** on social media referencing risks or concerns around Tobacco and Cannabis since January 1, 2019 (excluding Tumblr posts, made due to irrelevant noise)
- While there are some spikes in chatter, volume largely sustained at a certain level and takes place on forums; negative (67.9%) and positive (20.8%)
- High-volume keywords that appear in these posts include “addiction”, “effects”, “vaping”, and “cancer.”

**Platform breakdown**

<table>
<thead>
<tr>
<th>Platform</th>
<th>Mentions</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forums</td>
<td>4,073</td>
<td>59.1%</td>
</tr>
<tr>
<td>Facebook</td>
<td>1,096</td>
<td>15.9%</td>
</tr>
<tr>
<td>Twitter</td>
<td>1,721</td>
<td>25.0%</td>
</tr>
</tbody>
</table>
The Importance of compliance.

Despite the excitement and opportunity in the cannabis industry, it does not come without some associated risks. Companies looking to enter the space should consider multiple risk elements.

Risk sensing helps clients manage reputational, strategic, operational, and financial risk, as well as identifies risk concerns hiding in an organization’s blind spot.

Integrity Due Diligence looks at key drivers of integrity, operational and financial risk in order to understand potential areas of concern in everything from licensing, through supply chain, retail, cyber security and reporting.

Integrity Risk
Incomplete and inaccurate know-your-customer information on targets, staff and related parties.

Reputational Risk
Public safety and health concerns, recalls, ethics violations, social license infractions and quality concerns.

Financial Risk
Lack of financial transparency, including sources of funds, disbursements, and financial integrity of payment processes.

Operational Risk
Inadequate controls, processes, governance frameworks and indicators of operational weakness that would lead to AML violations.
The Illicit Market
Is very active and well organized...leveraging apps and mobile devices

- **Payments options** - Email Transfer, Credit Card and Cash
- **Product Range** - Offering recreational cannabis form factors that are not yet legislated
- **Branding** – Companies can differentiate through imagery and sales materials – currently Health Canada is very restrictive on Branding
- **Delivery** – Why wait...when you get your order delivered to chosen location
Key Analytic capabilities to combat Financial Crime

Development of “collective intelligence” to protect against money laundering, terrorist financing and other systemic threats, particularly threats employing transactions across multiple entities

**Data Aggregation** where unstructured, semi-structured and structured data, both internal and external, can be linked

**Entity Resolution** providing Holistic view of investigation entities is resolved from all available data

**Dynamic Risk Scoring** which are aggregated based on customer, transaction, product, geography scores

**Network Analysis** which are created from transactional and social relationships between entities reveal suspicious networks
Canadian Cannabis Data Hub PoC
A single source of truth for stakeholders

1. Data Aggregation

2. Structured output

3. Tailored User Persona Consumption
Data Aggregation

The ability to submit a single term or attribute of an entity across internal and external data sources
Traceability of results to source

Ability to see the search results in context to where they were located
Visualization of relationships
The ability to expand and collapse the nodes of relationships
Integrating Risk Scores to the Network

The ability to understand how a risk score impacts the network
Transaction Analysis

The ability to filter by transaction type search for patterns

Illustrative and Fake Transaction Data for Presentation
Counterfeit & Illicit Product
The Alternative to the Payment Options

There are lots....
Counterfeit Products

Is this illegal or counterfeit?

Anything sold at a discount raises red flags

Verification of where the product comes from?

How it is manufactured?

Could easily be counterfeited
Counterfeit Products

Dark Web search and results

Same Day Delivery | Ship Right to Your Door | Canada Wide | www.freightfreightonemoney.ca


Free delivery on $150 | Save 70% on first order | www.unisourcepages.com
Free two days shipping via Canada Post, on orders over $150. Fully discreet packaging. Come check out our wide variety from concentrates, vapes, edibles, oils, and much more. 24/7 Live chat service. 2 days express shipping.

Same Day Shipping | Right to Your Door | cannawiz.com
Wide selection of quality products at bargain prices. Dedicated customer service team.

Online Marijuana Dispensary | Buy My Weed Online Canada
https://buymyweedonline.ca
Canada's best mail order marijuana dispensary has weed for sale! Click now & browse our exciting, legal, quality, high & aromatic weeds at Buy My Weed Online.

Buy Weed Online | Best of Canada: www.cannawiz.com
Buy Weed Online Canada: The Green Room: Edibles: Concentrates

Cannabis Store |
Ontario Cannabis Store
https://ocs.ca
Ontario's only legal retailer of recreational cannabis. Shop legal! It's better to know what's in your cannabis.

Legal producer returns 6th result

Counterfeit Products

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Counterfeit Products

More results, two examples selling edibles

Not legal until Mid-December
Counterfeit Products

Drugs for sale:

ADDERALL (30mg)
Wickr: adderallplug
Email: prescriptiondrug@protonmail.com
Telegram: @prescriptiondrug

SUBOXONE (8mg)
Wickr: adderallplug
Email: prescriptiondrug@protonmail.com
Telegram: @prescriptiondrug
## Counterfeit Products

**A list of websites selling illegal pharmaceuticals**

Note Anchor and Flagship denominations.

All of these domains are linked to merchant account/s.

**Spoiler Alert** – **NONE of them are legal**
Counterfeit Products

Payment received:

Location of business
Counterfeit Products
Linked illegal business

Natalie Wallace, United States says,
"I was apprehensive about how my doubts would be addressed but what the heck, I went ahead and placed my order. Customer service was patient and helped me out."
Counterfeit Products

Relevance

We urge you, as leaders of large technology platforms, to ensure that existing policies that ban the sale or transfer of illicit items (such as vaping products that contain THC) are enforced.

..keep illicit vaping products off your platforms.
Shaping the Future of Medical Cannabis Through Transparency and Product Validation Pilot
Transparency and Product Validation Pilot

Cannabis Verification and Compliance Program leveraging blockchain for cannabis tracking, ensuring that patients and prescribers have confidence in the medicine being prescribed

- The objective of the Cannabis Traceability Work Group is to create an industry-wide, globally-scalable traceability framework, leveraging globally-recognized standards, in order to ensure a safe and efficient cannabis supply chain in Canada.

- The intent of this framework is to provide a trustworthy source for manufacturers, distributors, regulatory bodies, and other stakeholders in the medical and recreational cannabis supply chain to identify, verify, and track and trace cannabis products, right down to the genetic composite of the cannabis strains; ultimately protecting the consumer.

- The aim of the Work Group is to confirm requirements, identify interoperability, and approve a neutral, non-prescriptive framework that could be leveraged across the cannabis supply chain.
David Stewart is a leader in Deloitte’s Forensics practice based in Toronto. He has over 23 years experience conducting forensic investigations, and in leveraging forensic and analytic technologies to unlock the value of data.

Adrian Cheek is a 15yr Law Enforcement veteran who was at the forefront of Cyber based AML investigations. He designed and ran a number of Operations, including Operation Papworth, the removal of counterfeit goods from the wider web and Operation Pangea, an Interpol led investigation into illegal and counterfeit medicines. Adrian has worked in the private sector with major card brands to identify the merchant infrastructure behind the websites and implement the disruption and mapping of actors. Adrian leads the Cyber Investigation Centre Threat Hunting and Intelligence teams for Deloitte in Canada.