

The Dark Side of E-Commerce: Dropshipping Abuse as a Business Model

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E-Commerce

- Global sales reached over 6 trillion US Dollars
- Buyers purchase from diverse e-commerce platforms
- Sellers have a low barrier of entry into market

The Amazon logo consists of the word "amazon" in a bold, black, lowercase sans-serif font. A curved orange arrow starts under the letter 'a' and points to the right, ending under the letter 'z'.The eBay logo features the word "ebay" in a lowercase sans-serif font. Each letter is a different color: 'e' is red, 'b' is blue, 'a' is yellow, and 'y' is green.

Dropshipping as a Business Model

- Dropshipping
 - Where a seller outsources procuring, storing, and shipping products of items to a third party source/vendor supplier



Dropshipper



Source
Vendor

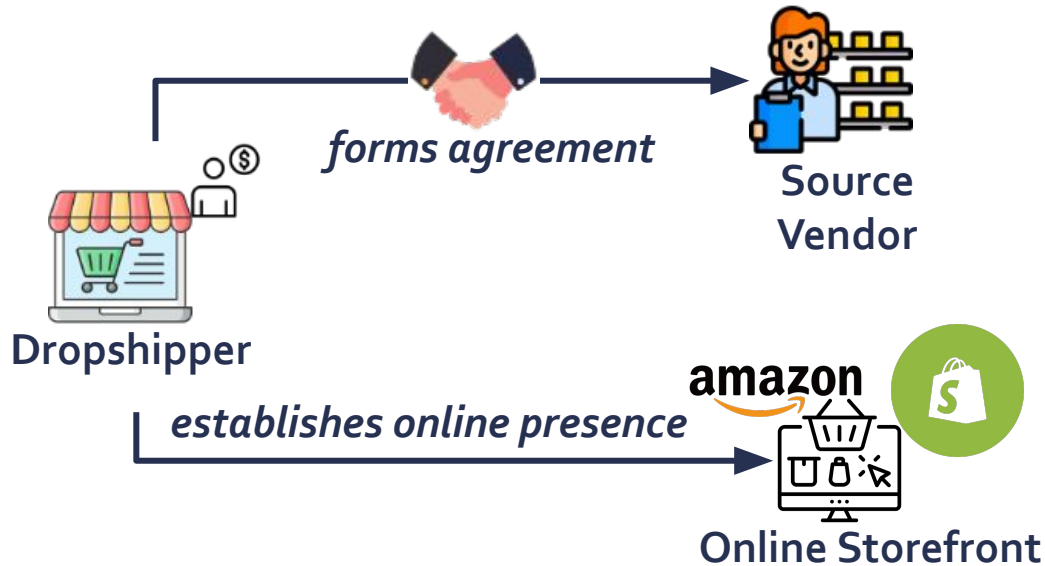
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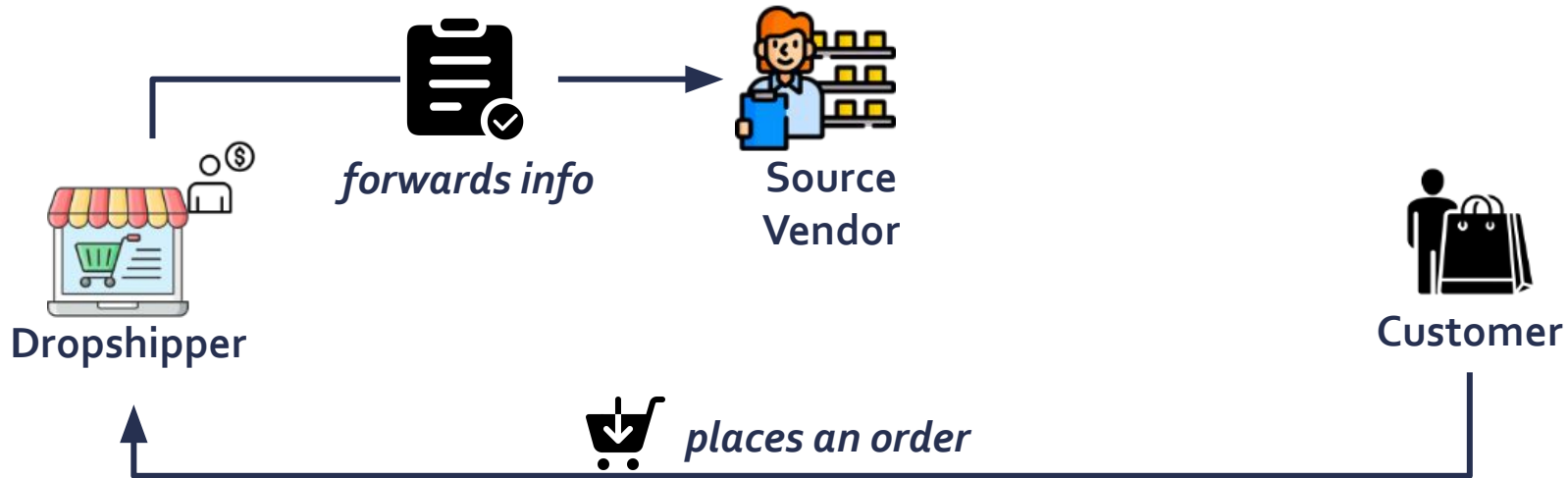
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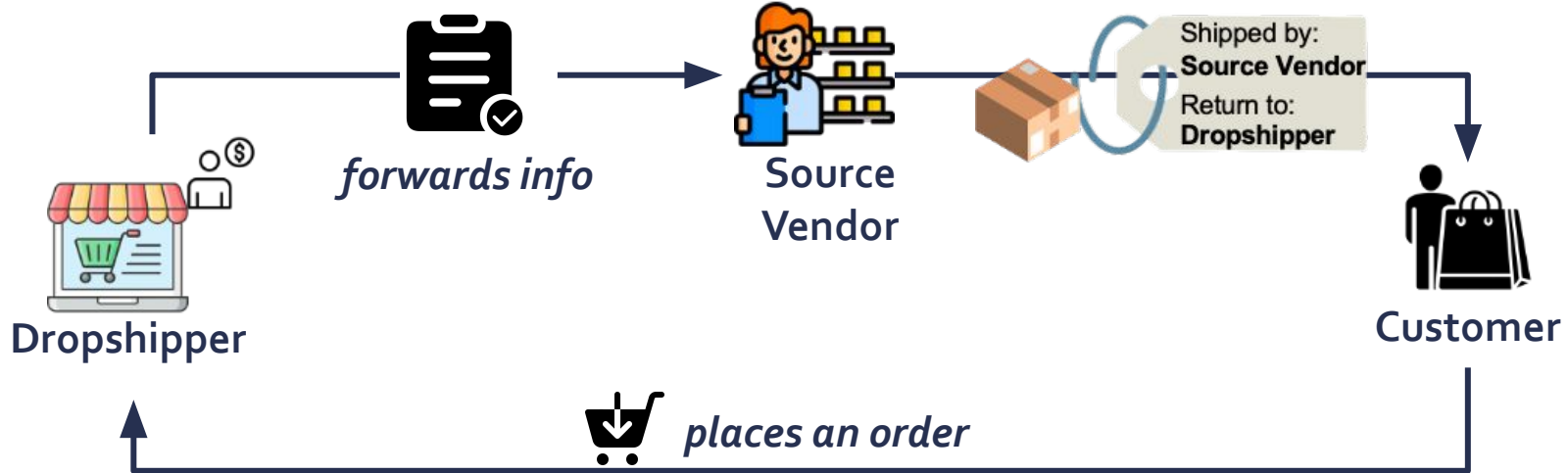
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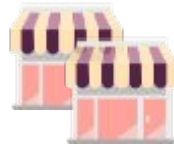
- Dropshipping
 - Where a seller outsources procuring, storing, and shipping products of items to a third party source/vendor supplier
- Lower barrier of entry than traditional e-commerce
 - No need to keep stocks
 - Not requiring a physical warehouse
- Dropshippers who establish agreements and abide by terms to agreement are compliant

Abusive Dropshipping as a Business Model

- Abusive dropshipping
 - Where one seller uses another unsuspecting seller to satisfy orders, with no formal agreement



Abusive
Dropshipper

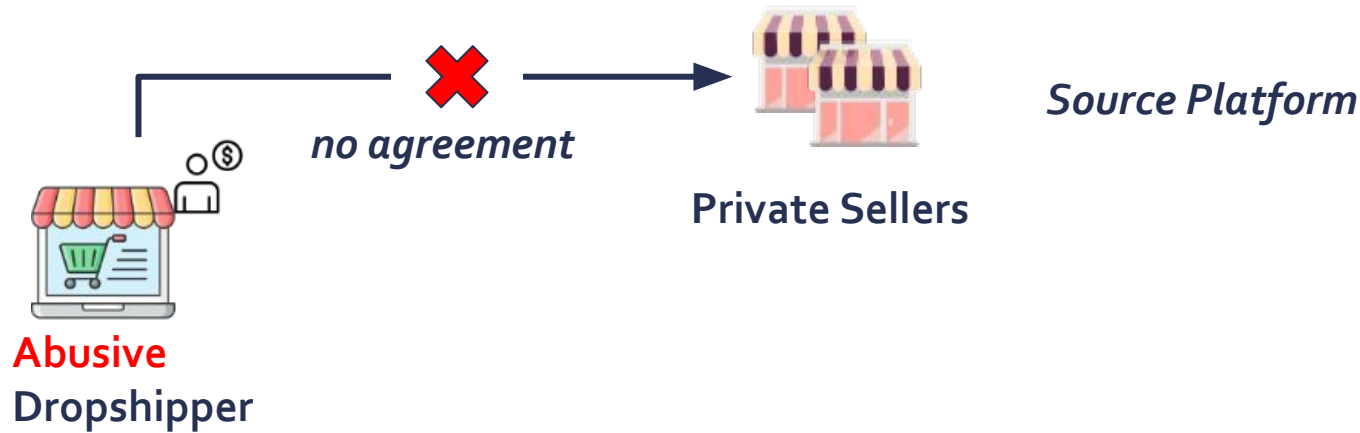


Source Platform

Private Sellers

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Abusive Dropshipping as a Business Model

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 - Where one seller uses another unsuspecting seller to satisfy orders, with no formal agreement
- Violates platform terms of service and guidelines
 - Agreement with suppliers
 - Shipping and packaging requirements
- Exploitative towards benign sellers
 - **How** do abusive dropshippers **operate**?
 - But are benign sellers **harmed**?

Abusive Dropshipping as a Business Model

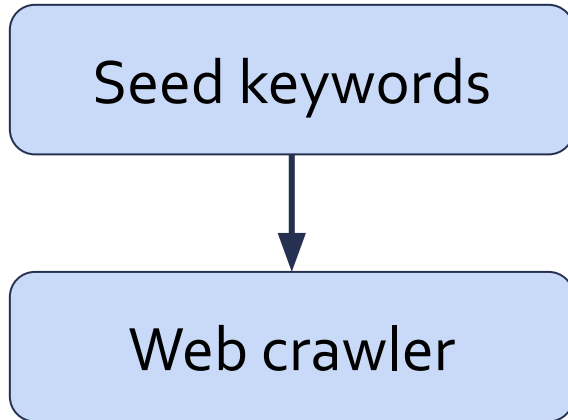
RQ1: What are the abusive dropshipping methods used by sellers that violate e-commerce policies?

RQ2: What tools are used to carry out such methods?

RQ3: How do these abusive operations harm customers, other sellers, or e-commerce platforms?

Methodology

- Investigation via a mixed-methods approach

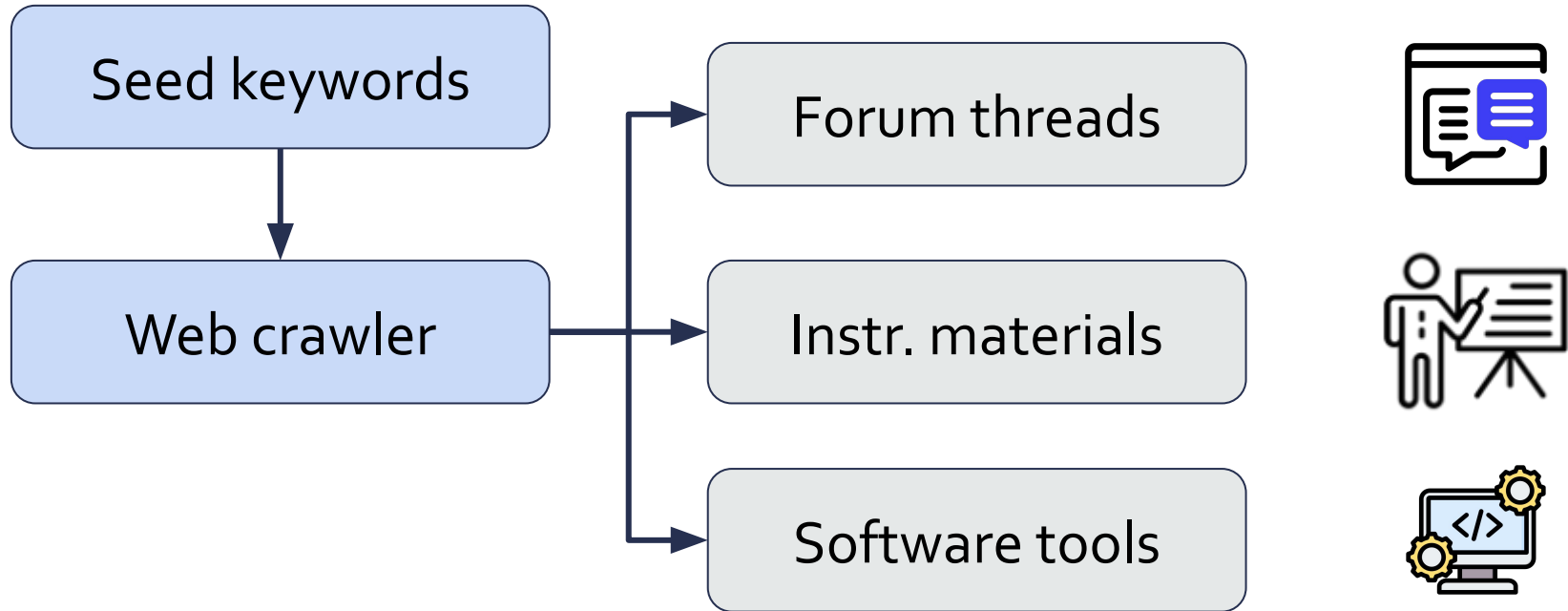


e.g.,

- dropshipping without permission
- dropshipping no agreement
- dropshipping avoid flag

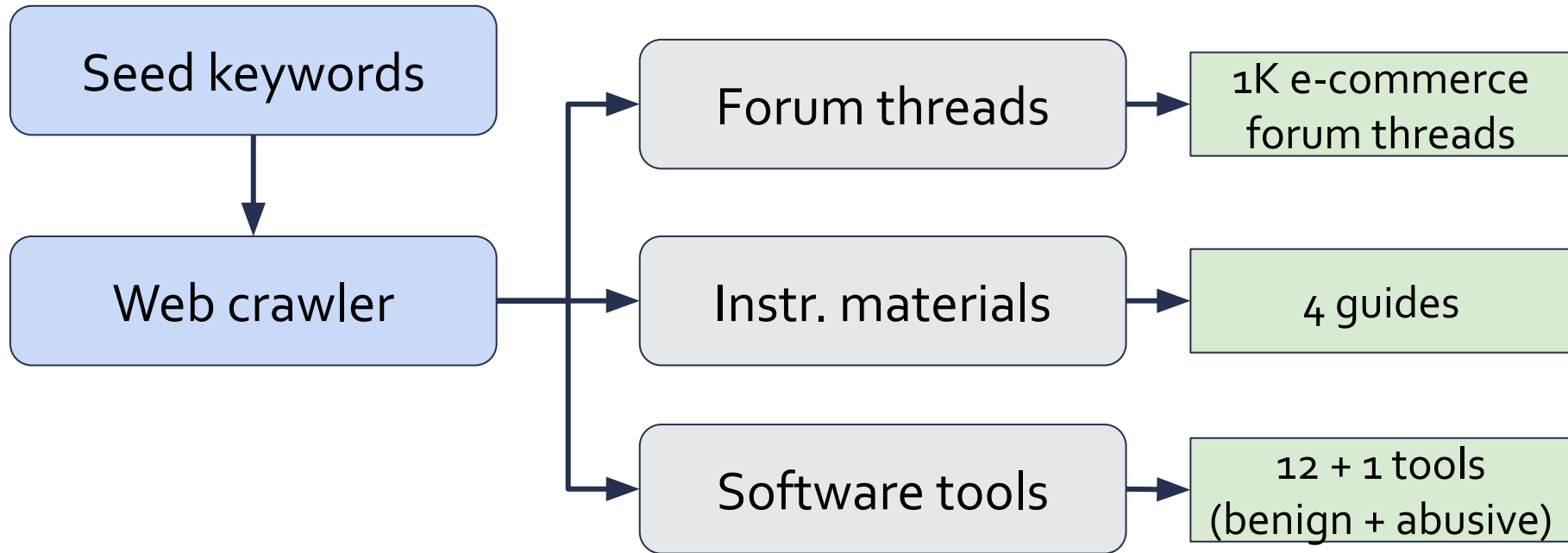
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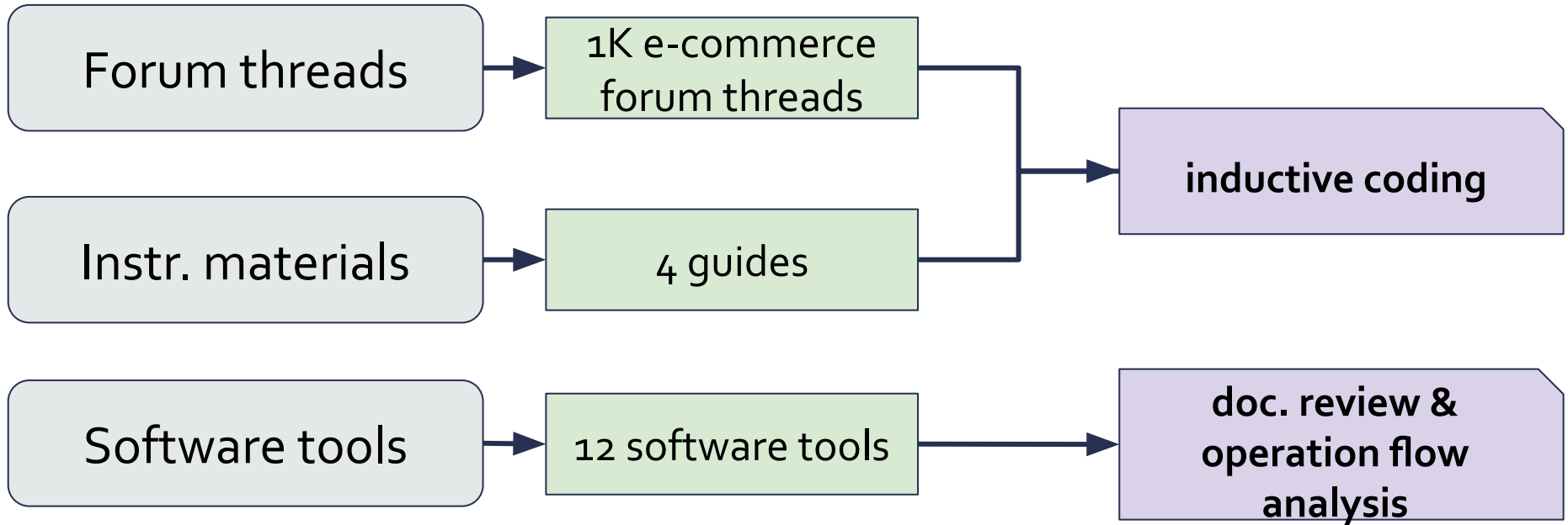
Methodology

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Methodology

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Methodology

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Forum threads

1K e-commerce
forum threads

Instr. materials

4 guides

Software tools

12 software tools

**Unclear impact
of abusive
dropshipping on
e-commerce
stakeholders**

Methodology

- Investigation via a mixed-methods approach

Forum threads

1K e-commerce
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Instr. materials

4 guides

Software tools

12 software tools

Semi-structured
interviews

4 sellers
2 legal consultants

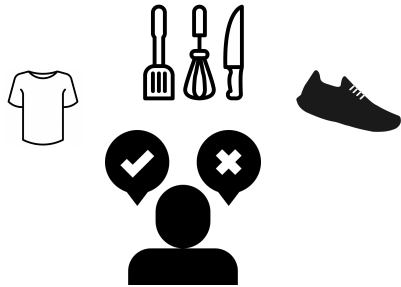
inductive coding

Abusive Dropshipping Operations

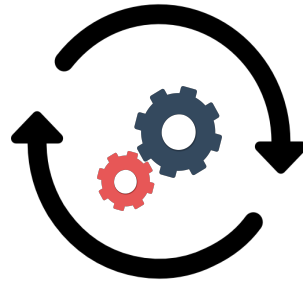
- Collected data provided us an overview of an underground community
- Abusive dropshippers partake in a complex ecosystem

Abusive Dropshipping Operations

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Item Selection



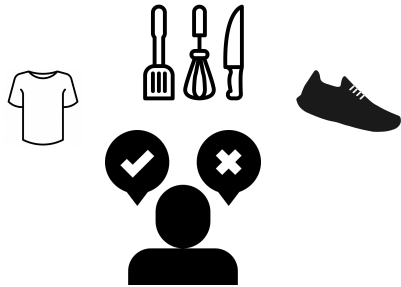
Operation Longevity



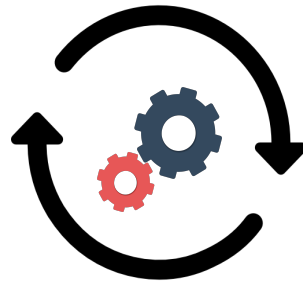
Customer & Seller
Harm

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Operation Longevity



Customer & Seller
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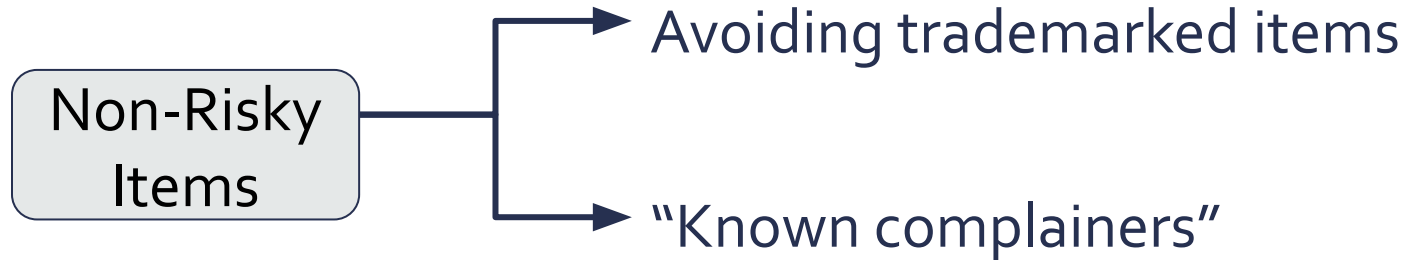
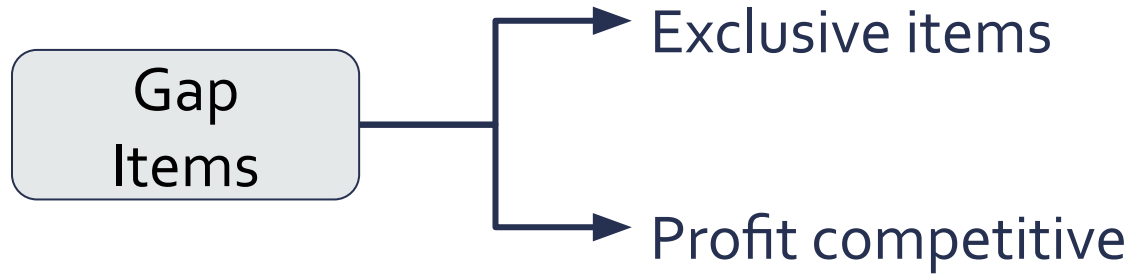
Item Selection

- Abusive dropshippers seek different items



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Target



Source



Target

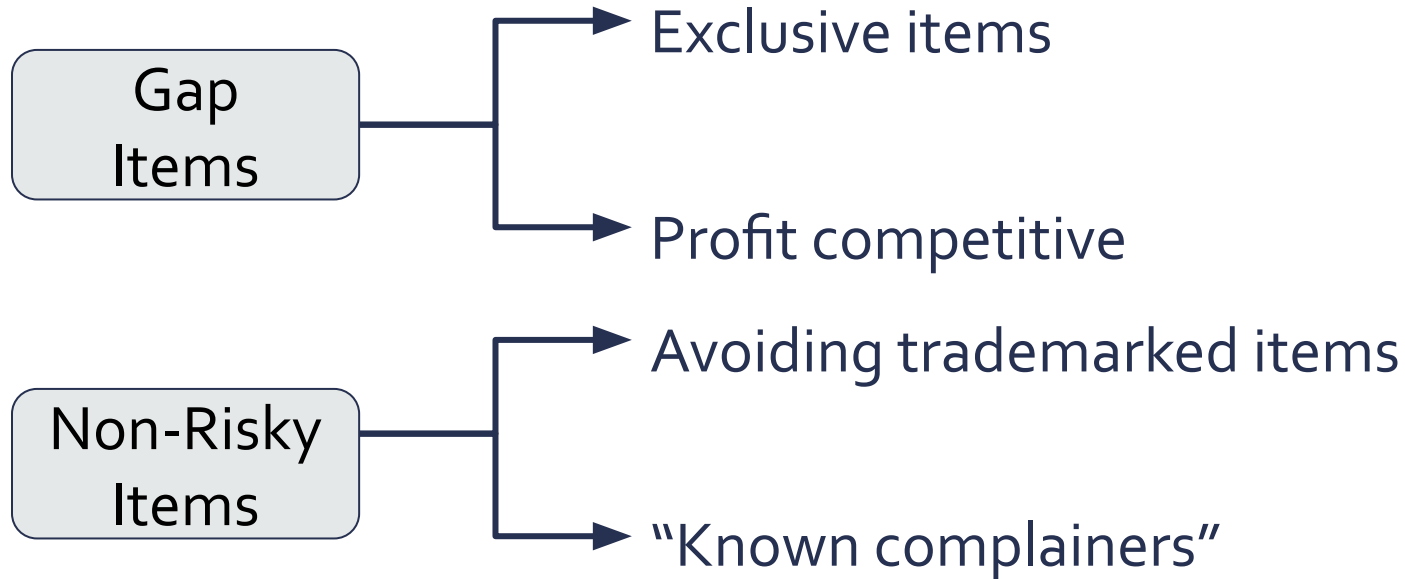


Source



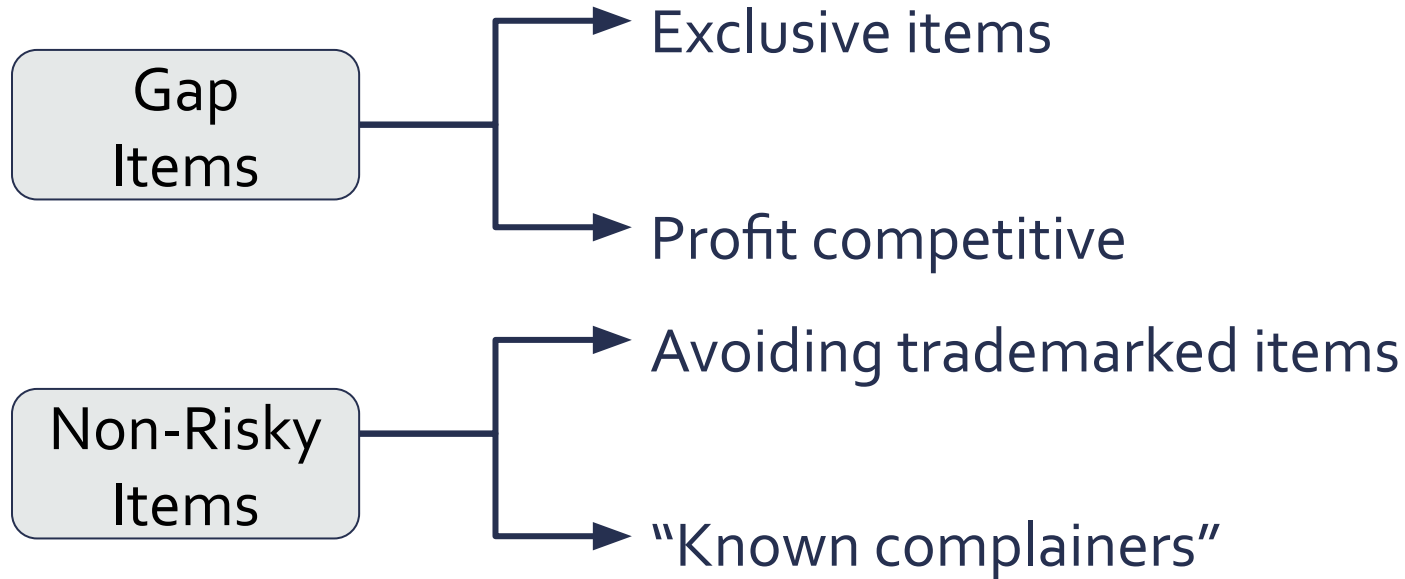
Item Selection

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Item Selection

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Item Selection

- Collaborative product research
 - Ideal product lists shared via data dumps
 - E.g., allow lists, profitable items

Item	Init Price (Sourced from on Amazon MX)	Sale Price (Sold from on Amazon US)
Bluetooth Adapter	\$26.18	\$46.36

**77%
increase**

Sample entry from discovered data dump

Item Selection

- Collaborative product research



Abusive dropshippers
design and leverage
software for
exploitative purposes

Item Selection

- Collaborative product research



Crawls popular online marketplaces



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Crawls popular online marketplaces



Queries community maintained
deny-list



Item Selection

- Collaborative product research



Abusive dropshippers **design** and leverage software for exploitative purposes

Crawls popular online marketplaces



Queries community maintained deny-list

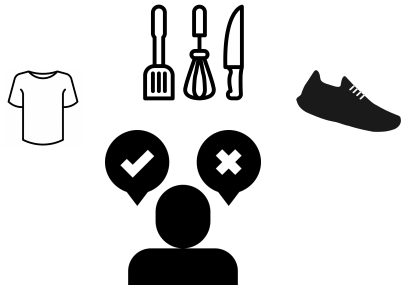


Filters out trademarked items

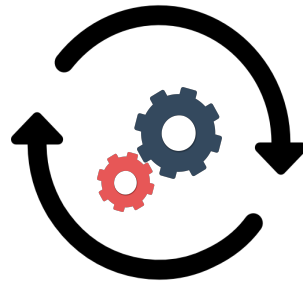


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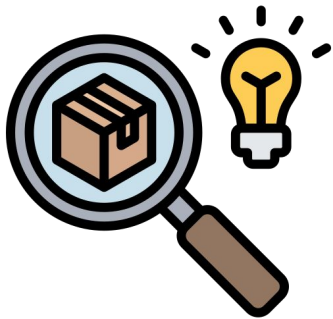
Operation Longevity



Customer & Seller
Harm

Operation Longevity

- Abusing benign software to compete in marketplaces



Product Research



Repricing/Revenue



Product Reviews

Operation Longevity

- Persistence via forged documents
 - Interviewed sellers have first-hand experience

“The platform said [the dropshipper] has [fake] documents although I confirmed with the manufacturer that I am the sole distributor in [region].”

Quote from interviewed participant who was abused by an abusive dropshipper

Operation Longevity

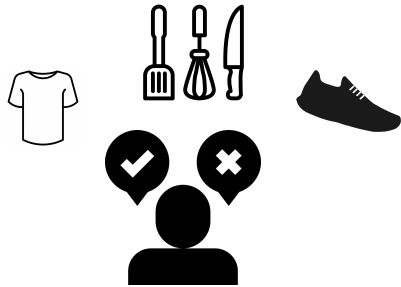
- Persistence via forged documents
 - Instructional material and guides promote forgery

“How to circumvent License of Authorization on Amazon (Sample License of Authorization Text)”

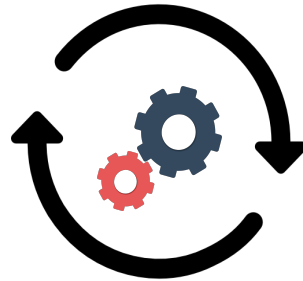
Heading from instructional material promoting document forgery

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Item Selection



Operation Longevity



Customer & Seller
Harm

Harming Other Sellers and Customers



Withholding
Tracking Numbers

Harming Other Sellers and Customers



Withholding
Tracking Numbers



Tracking #	Delivery ↕	Expected delivery date ↕
92001901*****	10001, NY, NEW YORK	5 Dec, 2022

Forging Tracking
Numbers

Harming Other Sellers and Customers



Neglecting or Procrastinating Orders

Harming Other Sellers and Customers

- Customers adversely impacted
 - Delayed arrival and refusal to refund

“The product never arrived [and they asked me to] wait for two and a half months. Terrible customer service [and] no effort to refund or communicate with [me].”

Forum thread from customer of abusive dropshipper

Harming Other Sellers and Customers

- Benign sellers reputation is harmed
 - Impacted customers may misplace blame

“The customer who does not receive the product may not know how to rate the seller, and instead rates the product”

“[They] write comments [the product] came to me in 30 days, this is a terrible business ... the review goes to the product.”

Quotes from interviewed sellers

Harming Other Sellers and Customers

- Benign sellers reputation is harmed
 - Misaligned customer expectations

“when a customer buys a 50 dollar item, they expect the item to be of that quality - however, they get the quality of a 10 dollar item”

Quote from interviewed seller

Key Takeaways

- Leverage characteristics for automated detection
- E-commerce platforms play an integral role in mitigation
- Important to ensure trust and safety for both benign sellers and buyers

Thank you! Questions?

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