

Kratom Brands in Vape Shops Across the US

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Abstract

Kratom may pose some health risks (e.g., liver toxicity, seizures, dependence), and interstate commerce is federally illegal; however, kratom is sold widely in the US. The extent of interstate commerce is unclear, but may be indicated by brands present across states/territories. Thus, this study examined kratom brands sold in US vape shops. Using Google Maps, we identified vape shops in all 50 states, DC, and Puerto Rico. Stores were called in November/December 2023. To achieve our target sample of 520 (n=10 per state/territory), 661 stores were called (contact rate=78.7%). Kratom was sold in 372/520 shops (71.5%), of which 153 (41.1%) provided brand information. Among 129 brands reported, OPMS was sold in 90.20% of shops across 42 states/territories, Remarkable Herb in 34.64% across 30 states/territories, and MIT 45 in 33.33% across 31 states/territories. Interstate brand presence indicates likely violations of federal laws and the need to strengthen regulation and enforcement.

Keywords: Kratom, brand, policy, marketing

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Introduction

Kratom has increased in use prevalence in the US (Grundmann, 2017; Swogger et al., 2026). Kratom comes from the *Mitragyna speciosa* tree native to Southeast Asia (Grundmann, 2017). In Asia, natural kratom leaves are often chewed or brewed into tea (Veltri & Grundmann, 2019), but in the US, kratom is synthesized and available in various forms including dried leaves, extracts, capsules, powders, and liquid shots (Grundmann, 2017; Grundmann et al., 2023), some of which (e.g., extract) are highly potent (OPMS, n.d.). Kratom is most often sold in vape shops and health/wellness stores (LoParco et al., 2024; Rossheim, LoParco, Tillett, Yockey, et al., 2024). A recent study of 520 vape shops across all 50 states, DC, and Puerto Rico found that 72% sold kratom, highlighting the extensive presence of these

products (Rossheim, LoParco, Tillett, Yockey, et al., 2024).

The most common active ingredients in kratom products are mitragynine and 7-hydroxymitragynine (7-OH) (Flores-Bocanegra et al., 2020), which interact with opioid receptors in the brain. Thus, kratom is often marketed as an opioid alternative and as a product that influences perceptions, mood, and physiological responses such as pain relief (Eastlack et al., 2020; Grundmann et al., 2022). Indeed, many individuals report using kratom to reduce or abstain from opioid use and to self-treat chronic pain, anxiety, and depression (Swogger et al., 2026).

Notably, kratom products are not approved for any medical use (Food and Drug Administration, 2022), and there is insufficient evidence to support kratom's safety and efficacy for any therapeutic applications. Moreover, although research in Asia indicates that long-term use of the

natural plant itself results in minimal health risks (Singh et al., 2020), there are no studies documenting harms from the long-term use of kratom extracts in the US. Yet, some research suggests that kratom use poses certain health risks, including gastrointestinal upset, seizures, cardiovascular problems, liver injury, psychosis, dependence, and withdrawal symptoms (Grundmann et al., 2023; Grundmann et al., 2022; Prevette et al., 2023; Prozialeck et al., 2022; Striley et al., 2022; Swogger & Walsh, 2018; Veltri & Grundmann, 2019). Nonetheless, more research (e.g., clinical trials, longitudinal studies) is needed to assess health outcomes associated with kratom use.

In 2016, the US Drug Enforcement Administration (DEA) proposed listing kratom's active compounds as Schedule I substances, which would make kratom federally illegal to possess, manufacture, or distribute under the Controlled Substances Act (Drug Enforcement Administration, 2016). However, due to push back from members of Congress, individuals who used kratom, and associated organizations, the DEA withdrew this proposal (Drug Enforcement Administration, 2016). Per the US Food and Drug Administration (FDA), "kratom is not lawfully marketed in the US as a drug product, a dietary supplement, or a food additive" (per section 402 of the Federal Food, Drug, and Cosmetic Act [FD&C Act]) (Food and Drug Administration, 2022). Additionally, under the FD&C Act, products marketed for therapeutic purposes or containing unapproved drugs are illegal when introduced into interstate commerce (Food and Drug Administration, 2022). Thus, there have been several occurrences of the FDA, in coordination with the Department of Justice, seizing kratom products (Food and Drug Administration, 2022).

Despite FDA attempts to block their sale, kratom is sold widely across the US (Rossheim, LoParco, Tillett, Yockey, et al.,

2024) and generally with little state oversight (Prozialeck et al., 2019; Veltri & Grundmann, 2019). However, some states and localities ban kratom product sales or regulate them through "Kratom Consumer Protection Acts". Some kratom manufacturers have also agreed to use the "Good Manufacturing Practice Standards Program" from the American Kratom Association – the leading trade and advocacy organization for the kratom industry, funded largely by vendors and manufacturers (American Kratom Association, n.d.). However, the Kratom Consumer Protection Acts and the Good Manufacturing Practice Standards Program focus on product testing for contaminants and labeling guidelines, which may not address potential harms of kratom products (American Kratom Association, n.d.). Furthermore, the widespread multistate distribution of kratom products may suggest violations to federal law under the FD&C Act; that is, when distributors ship kratom products across state lines, these sales fall under federal jurisdiction. The authority of states in addressing such violations is unclear or inapplicable, thus pointing back to the need for regulatory and enforcement efforts that can address these concerns.

No prior research has systematically documented the extent to which different kratom brands are sold across states, which may indicate the scale of unlawful interstate commerce. Thus, this study aimed to provide the first examination of kratom brands sold across the US in order to offer insights regarding unlawful interstate distribution.

Methods

This study used data from a larger dataset which has previously been used to publish findings on THC and kratom availability across the US; refer to (Rossheim, LoParco, Tillett, Treffers, et al., 2024) for more information. We identified vape shops in each

US state, Washington DC, and Puerto Rico near the largest commercial airport (n=5) and near the capitol building (n=5) in each state/territory. These locations were selected as they serve as major economic hubs and are highly accessible. We used the ‘search nearby’ function in Google Maps to compile a list of vape shops and called each one in November/December 2023 to ask, “Do you sell kratom?” If they responded “yes”, we asked “What brands of kratom do you sell?” To achieve our target sample of 520 (n=10 per state/territory; n=5 near airport and n=5 near capital building), we called 661 stores (contact rate=78.7%). This number was determined to balance national coverage with feasibility of data collection. Brands were independently dual-coded by masters- and doctoral-level researchers ($\kappa = 0.96$); discrepancies were resolved by meeting and discussing. Descriptive statistics were used to summarize the total number of brands and the most frequently reported brands. This study was determined to be not human subjects research by the University’s Institutional Review Board.

Results

Overall, 372/520 (71.5%) shops reported selling kratom. Among shops that reported selling kratom, 153 (41.1%) provided at least one brand (11 shops requested that the caller go to the store to see available brands). There were a total of 129 unique kratom brands mentioned across a total of 687 times. Among retail locations that provided at least one brand, there was an average of 2.28 brands mentioned per shop (maximum=10).

Most brands were mentioned by less than 5 locations (103/129 brands), with 58 brands (45.0%) only being mentioned by one shop. Table 1 lists the 26 brands mentioned 5 or more times. Of these 26 brands, 12 (46%) are listed on the American Kratom Association’s

website for adhering to the “Good Manufacturing Practice” Standards.

The top 5 brands listed (in order) by the most retailers included: Optimized Plant Mediated Solutions [O.P.M.S] (90.20% of retailers that mentioned at least one brand), Remarkable Herb (34.64%), MIT 45 (33.33%), Krave (20.26%), and Earth Kratom (18.30%). O.P.M.S. was sold in 42 states/territories, Remarkable Herb in 30, MIT 45 in 31, Krave in 11, and Earth Kratom in 16.

Discussion

This is the first assessment of kratom brands sold in vape shops across the US. Numerous brands appeared across multiple states, suggesting a coordinated distribution system. For example, OMPS emerged as a dominant brand, appearing in more than 90% of shops across 42 states/territories. Because kratom products marketed for human consumption are federally illegal to sell when introduced into interstate commerce, the appearance of the same brands in numerous states strengthens concerns that many retail sales likely violate the FD&C Act.

OMPS’s interstate presence reflects substantial marketing resources and distribution infrastructure, which has implications for the scale of FD&C Act violations and the capacity of major brands to resist, circumvent, or shape regulatory efforts. OPMS marketing primarily focuses on how these products are “organic”, “all natural”, “genetically modified to maximize alkaloids”, and distinct from other brands due to their proprietary extraction process (OPMS, n.d.). Yet, their products pose risks. Notably, the FDA put out a warning for individuals not to use OPMS’ ‘black liquid’ kratom due to its links with serious adverse effects, including death (Food and Drug Administration, 2024); this product continues to be available. Interestingly, OPMS’ website

Table 1. *Kratom brands listed by at least 5 retailers, among retailers mentioning brands (N=153 retailers)*

Brand	N (%)	Number of States/Territories Sold in (N=52)
OPMS*	138 (90.20)	42
Remarkable Herb*	53 (34.64)	30
MIT 45*	51 (33.33)	31
Krave	31 (20.26)	11
Earth Kratom*	28 (18.30)	16
Whole Herb*	24 (15.69)	19
Club 13*	21 (13.73)	16
Bumblebee	17 (11.11)	14
Hush*	15 (9.80)	11
Njoy*	13 (8.50)	11
Klarity	12 (7.84)	9
Kratom Company	12 (7.84)	10
MaxxOut	12 (7.84)	9
Choice*	9 (5.88)	7
Happy Hippo*	9 (5.88)	8
Just Kratom	8 (5.23)	8
Sembuh	7 (4.58)	6
Third Eye	7 (4.58)	4
1836*	6 (3.92)	2
Donuts	6 (3.92)	6
Kratom Gorilla	6 (3.92)	3
MIT Therapy	6 (3.92)	5
Safari	6 (3.92)	5
Kraken*	5 (3.27)	4
Pastel Cartel	5 (3.27)	2
Professor Whyte's	5 (3.27)	5
*Listed by the American Kratom Association as adhering to its industry-led, voluntary "Good Manufacturing Practice Standards Program", which does not meaningfully ensure consumer safety.		

includes several warnings regarding high potency products and use-related dangers (e.g., adverse health effects) (OPMS, n.d.). OPMS only sells to third-party retailers, and previous inquiries into the OPMS brand revealed that two dozen entities and trade names connected to this brand have been created over the last decade (Tampa Bay Times, 2023). These strategies may undermine the ability to hold the company

accountable for adverse events, for example, by blurring the capacity to trace suppliers.

Another key finding was the large number of brands identified, with most being mentioned in only one or two locations. This raises concerns about product variability, traceability, and limited accountability, as monitoring the sheer volume of brands may be cumbersome for regulatory bodies and smaller companies may have fewer resources

for safety testing. Additionally, these findings also suggest that this is a diverse and competitive market, which may drive down prices and increase product innovations (e.g., different forms, higher potency) to appeal to consumers, which may also pose risks for price sensitive populations and those prone to be early adopters (Rogers, 1995; Xu & Chaloupka, 2011).

Nearly half of the most frequently reported kratom brands in our study (46%) were listed on the American Kratom Association's website as adhering to its voluntary "Good Manufacturing Practice" (GMP) Standards program. However, these programs are industry-led and self-policed, without independent oversight and enforcement. Because kratom products are not lawful dietary supplements (Food and Drug Administration, 2022), federal regulations cannot impose manufacturing standards without implicitly authorizing these products, underscoring the need for stronger federal and state laws and enforcement actions to address these regulatory gaps and complexities.

There are some limitations to note when considering findings. Some retailers declined to provide information over the phone, we did not physically verify products in-store, and online retailers were not assessed, which may represent a substantial (but unknown) portion of the market (Williams & Nikitin, 2020). However, our large geographically diverse sample of US vape shops capturing a prominent retail source of kratom and provides timely information about major kratom brands.

Implications for Health Behavior Theory

Current findings suggest that certain kratom companies likely violate federal laws, and such violations entail specific challenges for states to address. These findings underscore the importance of regulatory efforts in shaping the retail environment and

the collective implications of these macro-level factors on individual behaviors and related potential risks. Regulatory gaps may leave consumers to navigate such under-regulated markets and lead to them misunderstanding the nature of the products to which they are exposed. Furthermore, these gaps may reduce the ability of consumers to successfully navigate adverse consequences of using these products.

The concentration of market leaders also suggests targeted marketing strategies and potential lobbying efforts that shape public understanding and policy responses. Surveillance of brand marketing, labeling, claims, and messaging is therefore critical to understanding how consumer beliefs and behaviors are shaped. Future research should examine how brand recognition, price, availability, and promotional practices influence kratom initiation and use patterns, and how regulatory actions might modify these behavioral determinants.

Discussion Questions

OPMS emerged as a kratom brand widely sold across multiple states. What factors might explain this brand's multistate market dominance, and what does such interstate brand presence suggest about potential violations of the Federal Food, Drug, and Cosmetic Act?

What challenges do policymakers and regulators face in addressing the rapid spread of kratom brands like OPMS, especially when popular brands operate across numerous states?

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