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Availability and Accessibility to Prohibited Tobacco Products through Online Platforms in Sri Lanka

Asantha WAJB
Center for Combating Tobacco
Dineshkumar P
Center for Combating Tobacco
Nilaweera AI
m44887@pgim.cmb.ac.lk

Center for Combating Tobacco
Perera NCS
Center for Combating Tobacco
Abeyratne EHS
Center for Combating Tobacco
Perera KMN
Center for Combating Tobacco
Rajasuriya MC
Center for Combating Tobacco
Shivam Kapoor
Vital Strategies

Research Article

Keywords: E-cigarettes, online platforms, nicotine products, tobacco, Sri Lanka

Posted Date: November 24th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-11672645/v1

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Additional Declarations: No competing interests reported.

Abstract

Introduction

In the context of tobacco losing its popularity worldwide, product innovation has become the most prominent industry strategy to maintain nicotine addiction and their profits. The Prohibited Tobacco Products Regulations of 2016 under the National Authority on Tobacco and Alcohol (NATA) Act prohibits manufacture, importation, sale or offering to sale of e-cigarettes containing tobacco and smokeless tobacco products in Sri Lanka. Despite the existence of policy and legal framework, an active illicit market appears to thrive online. This study systematically investigated the availability, accessibility, and digital marketing strategies of prohibited tobacco products across online platforms in Sri Lanka.

Methods

A cross sectional descriptive study was conducted through social media and online platforms from January to April 2026. A systematic keyword search using a multilingual matrix containing diverse terms to identify prohibited tobacco products (e.g., "vape", "puff", "nicotine pouch", "shisha") was conducted across mainstream social media platforms and e-commerce websites. All the platforms and websites which matched the eligibility criteria were included in the content analysis. Extracted variables included product types, retail pricing, transactional pathways, age verification requirement, and promotional strategies. Three test purchasing attempts were made to evaluate accessibility.

Results

A total of 214 online platforms selling prohibited tobacco products were identified: Facebook (108,50.5%) and Instagram (57,26.6%) were the commonest online platforms. The majority (150,70.1%) mentioned either “vape” or a synonym in their titles. Basic age checks were absent on 79.8% platforms. The range of prohibited tobacco products on the platforms comprised disposable vapes (210, 98.1%), vaping liquids (159, 74.3%), refillable devices (154, 72%), vaping accessories (79, 37%), cartridges (110, 51.4%), illicit cigarettes (15, 7%), tobacco rolling papers (9, 4.2%), and other nicotine products (31, 14.5%) including shisha, snus, nicotine pouches, and flavoured variants. Prices started from LKR 2200 (~ USD 7). The payment methods allowed bank transfers (214, 100%), cash-on-delivery (213, 99.5%), instalments (3, 1.4%) and cryptocurrency (4, 1.8%). Commonest delivery methods were couriering (214, 100%), including a service provided through a local ride sharing app (26, 12.2%). Marketing tactics included cross-merchandising, diverse purchasing and delivery mechanisms, appealing flavour profiles, and social media influencer campaigns especially focussing on glamourisation of product use by females.

Conclusions

A diverse range of prohibited tobacco products is available through online platforms in Sri Lanka, easily accessible, including to minors. The current regulations should be expanded to combat the entire range of products that sustain nicotine addiction, while surveillance and enforcement mechanisms need be strengthened to identify and counter illicit trade and industry interference.

Introduction

The tobacco epidemic is one of the most devastating public health issues worldwide, resulting in over eight million deaths annually, with significant burden of permanent disabilities and chronic illnesses (1–3). In Sri Lanka, a middle-income country, tobacco causes 20,000 deaths annually. All most all of the tobacco smokers in Sri Lanka are males as female smoking prevalence remain less than 1% for decades. The majority (82.4%) of smokers smoke manufactured cigarettes(4–6) .

Harmful effects from use of tobacco products historically led to strong public health measures and interventions globally, resulting in a shrinkage of cigarette market, reducing the expected profits, and investor enthusiasm. To secure the industry's sustainability, Transnational Tobacco Companies (TTC) have invested in product innovation, which includes developing and marketing "novel nicotine delivery systems", which basically achieves sustenance of nicotine addiction and their market share and profits(7). These new products are often marketed as products with 'reduced risk' or 'modified risk' by tobacco companies. They are sometimes disguised as "quitting aids", despite being shown to sustain nicotine addiction rather than end it. This quitting aid approach has previously been publicised as the tobacco harm reduction strategy(7). These newer nicotine and tobacco products include electronic cigarettes, heated tobacco products, nicotine pouches/snus, nicotine lozenges, gum and inhalers while disposable vapes being the most commonly used type of electronic cigarettes(8) .

Sri Lanka, interested in ending nicotine addiction rather than its sustenance, prohibited "e-cigarettes containing tobacco" along with flavoured, coloured, and sweetened tobacco products in 2016. The Prohibited Tobacco Product regulations introduced in 2016 by an Extraordinary Gazette of The Democratic Socialist Republic of Sri Lanka under the National Authority on Alcohol and Tobacco Act, No 27 of 2006, also banned any smokeless tobacco products or mixtures that contain tobacco(9, 10). Manufacturing, importing, selling or offering for sale of such products are prohibited, too (10).

Despite this prohibition, electronic nicotine delivery systems (ENDS), with their flavoured, coloured, and sweetened variants seemed to be widely available and easily accessible through online platforms in Sri Lanka. Such ubiquitousness in the cyber space indicates a thriving black market that bypasses standard point-of-sale regulations, creating a critical blind spot in policy enforcement. Scarecity of data on availability and accessibility of these products in the absence of a robust surveillance system makes matters worse. Our study particularly fulfils this critical information gap by aiming to explore the accessibility and availability of prohibited tobacco products through online platforms in Sri Lanka.

Methods

A cross sectional, descriptive study was conducted from January to April 2026 to investigate online availability and accessibility of prohibited tobacco products in Sri Lanka. The study targeted e-commerce websites (e-marketplaces) and mainstream social media and messaging platforms commonly used in Sri Lanka, including Facebook, Instagram, TikTok, YouTube, and WhatsApp. A dedicated account was created on each social media and messaging platform for the study, using a separate email address and a mobile phone number exclusively assigned to the study and managed by a single data collector.

A systematic keyword search was conducted using a standard search engine to identify relevant online platforms, accounts, groups, and product listings. The search protocol utilised a comprehensive matrix of English and local language terms related to prohibited tobacco products in Sri Lanka. Search terms included, but were not limited to English synonyms and local language translations of: "vape", "puff", "smoke", "e-cigarette", "nicotine pouch", "snus", and "shisha". The full list of key words is annexed in Annexure 1.

Snowball sampling technique was used until new social media and online platforms did not emerge as saturation was reached. WhatsApp platforms were identified from the links mentioned in Instagram platforms and Facebook customer-seller groups. Figure 1 shows the number of online platforms identified, screened and included for the analysis.

Data was extracted through the identified online platforms using a structured data extraction sheet. For each unique online platform, the researcher documented product characteristics including product type (e-cigarettes, heated tobacco products, pouches, shisha, other smokeless tobacco products), flavour profile, retail price range, vending operations including purchasing mechanism, transactional pathway, delivery method, presence and method of age verification or presence of basic age checks and marketing tactics used. In addition, three test purchasing attempts were made using mystery shopper methodology to verify their availability and to explore their accessibility, purchasing mechanisms and delivery methods(11) .

Extracted data was compiled into a data sheet in MS Excel 2024 version and were summarised using descriptive statistics to determine the range of product, brand type, and price; use of advertisements, promotion and marketing tactics; purchasing and delivery methods used; and presence of basic age check. Thematic analysis was used to analyse the qualitative data related to content of advertisements, promotion and marketing tactics and user-interaction methods.

Due to the liabilities associated with the study, confidentiality of the data collector was strictly preserved. National Dangerous Drugs Control Board, the national authority on illicit drugs was informed about the study. The ethical clearance was obtained from the Ethics Review Committee of the Faculty of Medicine, University of Colombo (EC-25-210).

Results

Distribution of Online Retail Platforms

We identified 214 online platforms selling prohibited tobacco products within Sri Lanka. Majority of these online platforms were hosted by social media platforms led by Facebook (n = 108,50.5%). Conventional e-commerce websites accounted for the least number of platforms (n = 18, 8.4%). Although active YouTube channels promoting e-cigarettes were discovered, these did not facilitate direct sales. They appeared to function as promotional platforms, directing viewers via links to the aforementioned transactional platforms. The distribution of these retail channels is illustrated in Fig. 2.

Product range and pricing

The commonest available product type was ENDS and their accessories. Disposable vapes was available across 98.1% (n = 210) of all explored platforms. The prices spanned across a wide range from LKR 4,500 to LKR 24,000 (USD 15 to USD 80). The second commonest was the vaping liquids, which was found in 159 (74.3%) platforms. The prices of cartridges/pods (n = 110; 51.4%) and hardware devices (n = 154; 72%) such as refillable systems and pod-kits were also found to be widely distributed, with high-end device kits reaching up to LKR 47,000 (USD 160). A few platforms (n = 15; 7%) sold illicit cigarettes that are not licenced to be sold in Sri Lanka and a few (n = 9; 4.2%) sold tobacco rolling papers as well. Other nicotine and prohibited tobacco products, including snus, nicotine pouches, and coloured/flavoured shisha variants, were found on 31 (14.5%) of the platforms. Availability of different product types in different platforms is illustrated in the Table 1.

Table 1
Availability of products across different social media and messaging platforms and retail price range

Platform/ Product type (Descending order)	No of Facebook pages/groups (%) (n = 108)	No of Instagram accounts (%) (n = 57)	No of WhatsApp groups (%) (n = 12)	No of Tiktok pages (%) (n = 19)	No of Websites (%) (n = 18)	Total No of platforms (%) (n = 214)
Disposable vapes	106 (98.1%)	55 (96.5%)	11 (91.7%)	19 (100%)	18 (100%)	210 (98.1%)
Vaping liquids	79 (73.1%)	43 (75.4%)	11 (91.7%)	09 (100%)	17 (94.4%)	159 (74.3%)
Devices	80 (70.0%)	37 (64.9%)	11 (91.7%)	10 (52.6%)	16 (88.8%)	154 (71.9%)
Accessories	29 (26.8%)	20 (35.1%)	11 (91.7%)	02 (10.5%)	17 (94.4%)	79 (36.9%)
Cartridges	50 (46.3%)	26 (45.6%)	12 (100%)	04 (21.1%)	18 (100%)	110 (51.4%)
Illicit cigarettes	04 (3.7%)	02 (3.5%)	06 (50%)	00 (00%)	03 (16.6%)	15 (7%)
Rolling papers	02 (1.85%)	03 (5.2%)	03 (25%)	00 (00%)	03 (16.6%)	11(5.1%)
Nicotine pouches & snus	02 (1.85%)	07 (12.3%)	00 (00%)	00 (00%)	02 (11.1%)	11(5.1%)
Shisha products	06 (5.5%)	13 (22.8%)	05 (41.7%)	01	06 (33.3%)	31 (14.5%)

The overall platform frequency for different product types, and price distributions are mentioned in Table 2.

Table 02
Price ranges of different product categories.

Product category	Retail price range in LKR (USD)
Disposable vapes	4500 to 24000 (~ 15 to ~ 80)
Vaping liquids	2,200 to 6500 (~ 7 to ~ 22)
Devices (refillable/pod-kits)	4500 to 47000 (~ 15 to ~ 157)
Cartridges (pods)	1500 to 4500 (~ 5 to ~ 15)
Accessories (coils, wicks)	300 to 4000 (~ 1 to ~ 13)
Illicit cigarettes	400 to 1400 (~ 1 to ~ 5)
Tobacco rolling papers	1600 to 3400 (~ 5 to ~ 11)
Nicotine pouches and snus	2500 to 3500 (~ 8 to ~ 11)
Shisha	1500 to 7200 (~ 5 to ~ 24)

Operational mechanics

Majority of the identified platforms (n = 150; 70.1%) embedded explicit keywords, such as "vape", "puff", "shisha", or related synonyms directly within their primary account names or domain handles.

The payment gateways and delivery methods were highly diversified. They are mentioned in the Table 03.

Table 03
Payment methods and delivery methods used by different platforms

Payment method	No of platforms (%)	Delivery method	No of platforms (%)
Bank transfers	214 (100%)	Third-party couriering	214 (100%)
Cash-on-delivery service	213 (99.5%)	Couriering through local ride sharing services: PickMe	26 (12.1%)
Cryptocurrency payments	04 (2%)	Couriering through local ride sharing services: Uber	01 (0.5%)
Structured instalment plans	03 (1.4%)	peer-to-peer delivery model	01 (0.5%)

Out of 214 platforms, only 43 (20.1%) featured some form of basic age checks or gatekeeping protocols, leaving nearly 80% completely open to minors. None of the platforms demonstrated an age verification method. The number of platforms of each variety with or without age restriction is illustrated in the Fig. 03.

The platforms employed tactics to avoid potential bans and restrictions by traditional enforcement strategies. They included use of coded language, alternative terminology, and different keywords to hide listings from content moderation algorithms. They also deployed private / third party integration leveraging encrypted end-to-end messaging channels (e.g., WhatsApp direct messaging) to execute the final sale and financial settlement.

Digital marketing tactics and consumer targeting

These platforms have employed sophisticated digital marketing campaigns that can be classified into three primary strategic categories: product/brand promotion, sales promotion, and promotion of the use as described in Table 04.

Table 04
Digital marketing tactics employed by the vending platforms

Strategy Classification	Specific Marketing Tactics Observed
Product Promotion	Attractive, high-contrast images
	In-feed video advertisements
	Dedicated YouTube product reviews/vlogs
	Claims of official manufacturer partnerships
	Claims on benefits for health
Sales Promotion	Bulk discount tiers
	Free shipping incentives
	Diverse payment methods
	Diverse delivery methods
	Cross-merchandising with lifestyle consumer goods
	Publishing private feedback screenshots
	Coerced consumer reviews
Promotion of use	Highlighting as appealing flavour profiles
	Normalisation through behavioural videos
	Glamourising use as a risk-free, modern lifestyle trait
	Paid social media influencer endorsements
	Promotional blogs propagating false safety narratives
	Interactive WhatsApp consumer polls
	Modelling
	Alignment with the industry 'harm reduction' narrative

Products were heavily featured with vivid colours and “sweet”, “exotic” “fruit”, or “menthol” flavour profiles. A key tactic observed was the cross-merchandising of prohibited tobacco products alongside everyday lifestyle goods, including mobile phones, stationery, clothing, and food items. They also used paid social media influencers, glamourising use as a modern, sophisticated habit, and anchoring promotions to the industry backed tobacco harm reduction narratives, falsely positioning these products as entirely safe, risk-free alternatives for cigarettes. Depiction of smoking by attractive movie characters of social media influencers may affect the followers via the learning theory called modelling.

Discussion

This study provides a critical assessment of the online platforms facilitating the availability and accessibility of prohibited tobacco products in Sri Lanka. Despite a comprehensive legislative framework established under the NATA Act, No. 27 of 2006, our findings reveal a highly sophisticated online black market easily accessible to anyone with a smart phone, including youth and children. With the main finding that there are 214 active digital platforms across major social media networks and e-marketplaces, this study demonstrates that physical point-of-sale bans are readily bypassed by digital supply chains that actively exploit structural enforcement gaps.

The high availability of disposable vapes is in par with global trends where ENDS having the larger markets(12). Our data show that social media platforms serve as a major domain supporting illicit trade of prohibited tobacco products in Sri Lanka. This aligns with regional data from other middle-income countries where digital spaces have replaced traditional storefronts to evade legal and public health surveillance(13).

The wide economic range of disposable vapes (LKR 4,500 to LKR 24,000 / USD 15 to USD 80) indicates a highly segmented market designed to capture both high end consumers, price sensitive youth, and low-income groups. Furthermore, the presence of alternative nicotine products, which were not widely found in Sri Lanka before such as snus, nicotine pouches, and coloured/flavoured shisha variants were found on a significant proportion of the platforms (14.5%). This highlights an expanding market of different nicotine products developing within the country unmonitored, which reminds us of the warnings from the World Health Organization (WHO) regarding the rapid, unregulated global expansion of emerging nicotine products associated with exploitation of regulatory loopholes(14) .

Another key finding of this study is the operational flexibility displayed by online platforms to evade domestic law enforcement. However, the fact that 70.4% of platforms openly used explicit keywords like "vape" or "puff" in their profile names suggests a low perceived risk of legal repercussions or penalties by platform algorithms. More alarmingly, the integration of multi-tier transactional flows represents a deliberate strategy to escape detection by law enforment. Some platforms use public social media feeds merely as "digital window-shopping" platforms, while actively routing financial checkouts to take place through encrypted, private channels like WhatsApp. This shift renders traditional point-of-sale inspections ineffective indicating a critical enforcement gap, a phenomenon documented in other countries as well(13).

The emergence of peer-to-peer (P2P) delivery model, where consumers double as distribution agents, is a highly concerning development. This model further safeguards primary distributors from law enforcement and increases the volume of illicit trade within local peer groups(15).

The cross merchandising of e-cigarettes alongside benign, everyday lifestyle goods, such as stationaries, food items, and clothing, indicates a deliberate sophisticated psychological operation to normalise product consumption, by making those seem legal to a customer visiting the site. By promoting an illicit substance with daily essentials vendors effectively dilute the perceived harm of nicotine use as well (16).

Our study exposes how vendors use flavour profiles and age and gender targeted narratives to expand their consumer base. In Sri Lanka, female smoking prevalence low, as evidenced by the Global Adult Tobacco Survey (GATS), which may be accounted for a matriarchy oriented social structure and high stigma associated with smoking and indulgence (17). However, online platforms are actively trying to change this cultural protective factor by aggressively marketing ENDS to females, as well as to youth in general, as fashionable, risk-free, and modern lifestyle traits. Marketed with appealing fruit flavours and promoted by social media influencers, these digital spaces mask the severe health and economic risks associated with nicotine exposure, potentially triggering a nicotine epidemic in a country that historically protected half its population from the tobacco related harm (18).

Strength This study is a first of its kind in Sri Lanka which was a comprehensive exploration including the commonly used social media and messaging platforms.

Limitations:
The search strategies used are heavily influenced by algorithms of the social media and online search engines. This may have led to a selection bias generated by those, which is beyond the control of the research team. This limitation may mean that our study may not capture hidden or private illicit networks, it still accurately reflects the actual marketplace and marketing tactics an average Sri Lankan consumer, including a minor, is exposed to when searching for these products online.

The access to the platforms and the details may have been limited because the investigators tried to enter into illicit product trading networks independently, without an internal link. This may have led to an underestimation of accessibility and availability for a regular user who is already in the network of trade.

Conclusions

E-cigarettes and other tobacco products prohibited since 2016 in Sri Lanka are widely available through online platforms, and easily accessible even for minors. The diverse product range also include flavoured products, which are also prohibited under the state law. A range of direct and subtle advertising and marketing tactics are employed, prominently targeting youth and women. Even basic age-checks are absent in the majority and purchasing is quite feasible with online payment facilities. Peer-to-peer delivery model and use of regular tax/courier services for delivery is a concerning trend.

Recommendations:

The government authorities and agencies should regularly and rigorously monitor availability and accessibility to prohibited tobacco products, especially via online platforms. The enforcement of existing regulations should be strengthened and monitored by the relevant authorities. The youth, women and general public should be empowered to identify and resist subtle marketing tactics used to hook them as consumers.

Declarations

Ethics approval - The ethical clearance was obtained from the Ethics Review Committee of the Faculty of Medicine, University of Colombo (EC-25-210).

consent to participate – Not applicable because no data was collected from human participants and all collected data are publicly available.

Consent for publication- Not applicable. All collected data are publicly available.

Accordance statement: This study was conducted in-accordance with the Council for International Organizations of Medical Sciences (CIOMS) guidelines on research ethics

Availability of data and materials - The datasets used and analysed during the current study are available from the corresponding author on reasonable request.

Competing interests - The authors declare that they have no competing interests.

Funding – The work was funded by a grant by Vital Strategies on behalf of Bloomberg Philanthropies. The funder did not have any role in the study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Authors' contributions – MP and MR conceptualized the study. MP and AN planned the methodology and oversaw the implementation. PD, BA, CP, SA and AN identified platforms and BA collected data. BA and AN analysed the data and drafted the manuscript. MP, MR and SK reviewed and finalised the manuscript. All authors read and approved the final manuscript.

Acknowledgements – Research Division of the National Dangerous Drugs Control Board for their assistance and administrative clearance.

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Figures

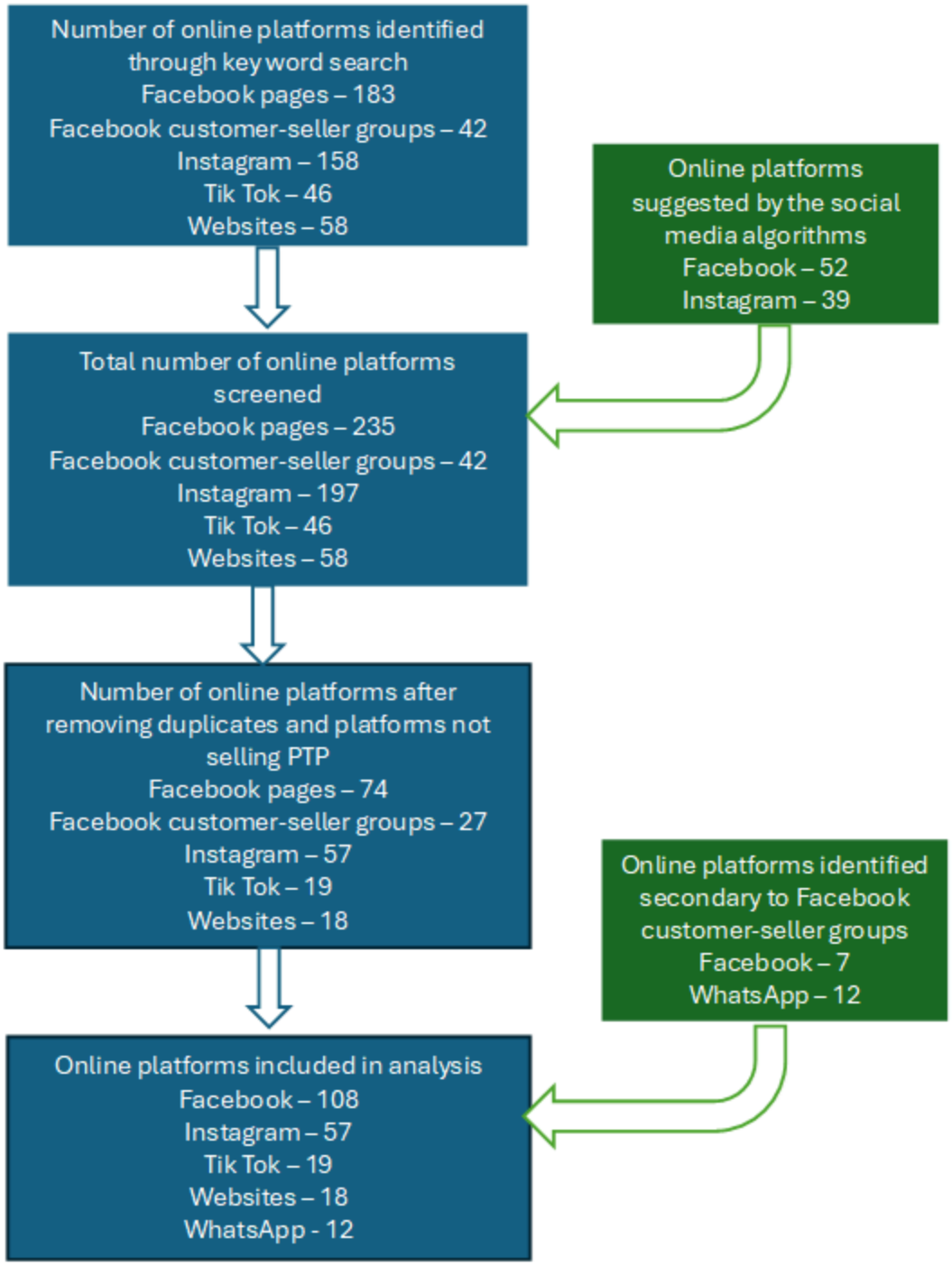

Figure 1

Flowchart of identification of social media and online platforms

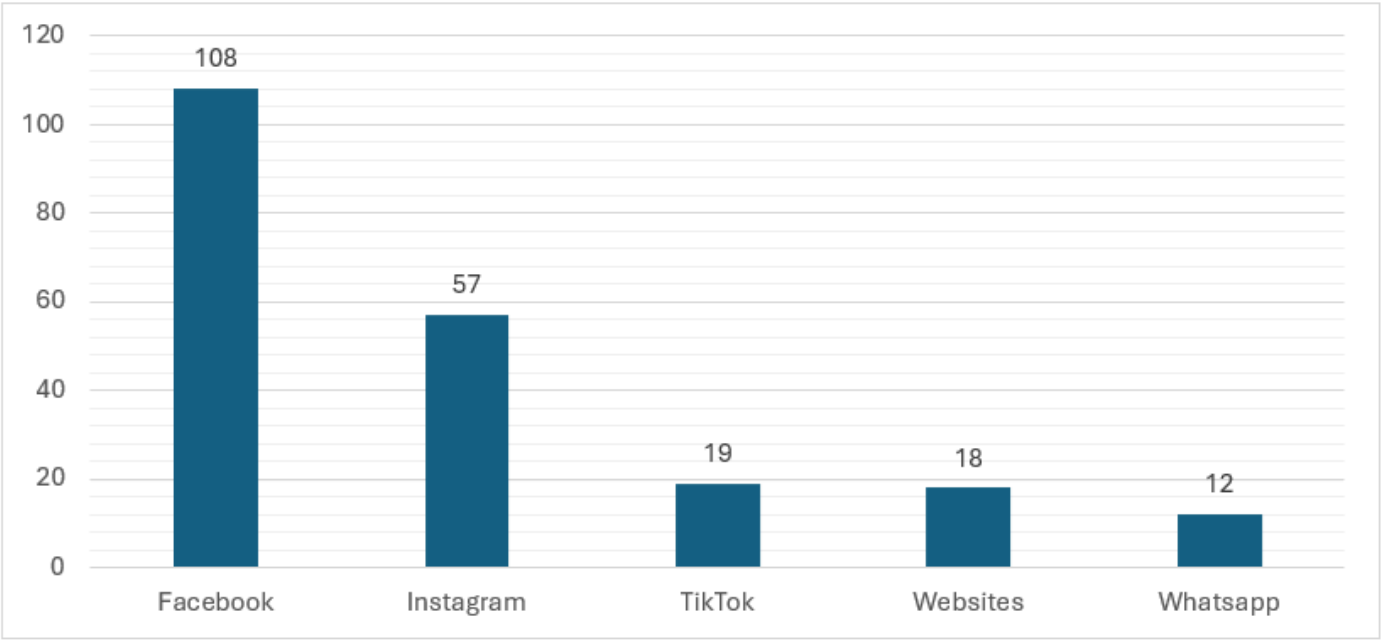

Figure 2

Social Media and Online Platforms Selling Prohibited Tobacco Products in Sri Lanka as of March 2026 (N=214).

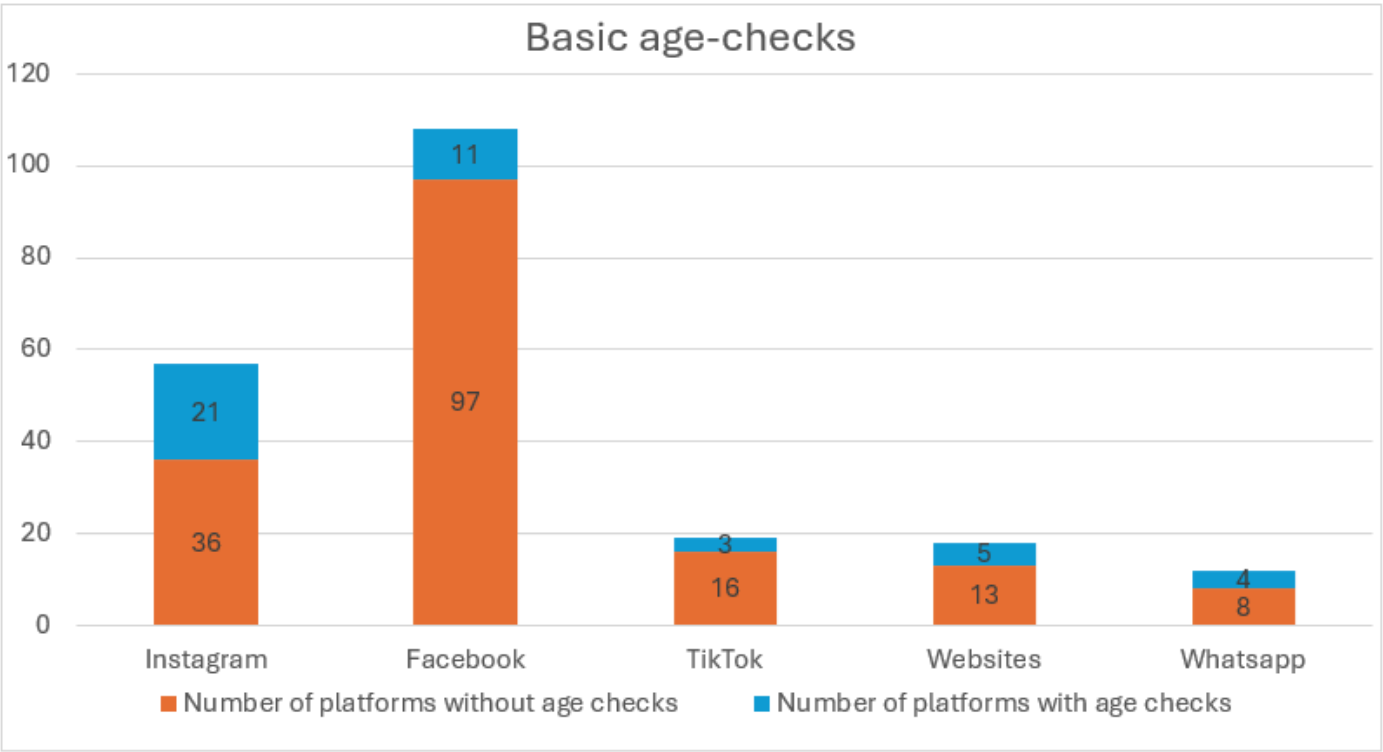

Figure 3

The distribution of basic age checks through different social media and online platforms.